

Catalog 244  
November 2004

# JAMECO<sup>®</sup>

ELECTRONICS  
Great Products, Awesome Prices!

**Now Offering  
60% More  
Product!**

**Best Values  
From Around  
the World**

**Awesome Prices:  
We Guarantee It**

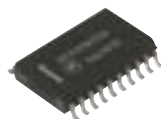
**New, Easy-to-Use  
Web Site**

**99+% Same-Day  
Shipment**

**1-800-831-4242  
www.Jameco.com**

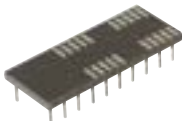
### In This Catalog, NEW is the Word!

Take a look through this book, and you'll see a lot that's new! In fact, over 60% is new compared with our catalog just 12 months ago; more new products, more complete lines, and more of your most-wanted products. And it's easier than ever to find exactly what you need!



We've added 100 new D/A and A/D converters, 200 new analog parts, hundreds of new logic devices in the F, AHC, AHCT and ABT series, a ton of new UARTs, CODECs and ENDECs, and new interface components ranging from

RS232 and  $\mu$ P to RS422/485. You'll also find over 60 new IC adaptors and sockets from Aries, a wider range of Switchcraft audio



connectors, and over 50 new terminals and splices from AMP. There are also more new relays, both from Potter & Brumfield and in a new value-packed line from Jameco. Plus, we've added

over 150 new rechargeable battery packs, in the most-requested configurations and capacities, all off the shelf.



One thing certainly isn't new: Jameco's ongoing commitment to bringing you great products at awesome prices. If

you don't find what you need in these pages, please e-mail us 24/7 at [NewProducts@Jameco.com](mailto:NewProducts@Jameco.com). We're listening, and working to make this the catalog you turn to for all your needs in electronic components!



### More NEW Products Throughout the Catalog.



Power Supplies  
on pages 128-141



ICs on  
pages 6-43



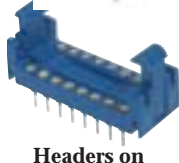
F Connectors & Cables on pages 79 & 245



Terminals on page 99



Wall Adapters  
on pages 150-154



Headers on  
pages 85-90



Audio Connectors  
on pages 79-81



Sockets on pages 89-91 & 245

### We'll Beat Their Price By 10%!



At Jameco Electronics, our success is based on a simple formula: we

bring our customers the best products from around the world, at the absolute lowest prices. And we don't just say it, we guarantee it!

Everyone at Jameco shares this dedication to high quality and great value, and that translates to real, meaningful savings for you. We're not talking nickels and dimes; we try our best to consistently bring you savings of a full 10% to 20% compared to market prices. And when we score a special deal with our suppliers, we're thrilled to pass even bigger savings on to you!

Of course, a guarantee is only as good as the

company that prints it. With Jameco, it's very simple: if you ever find a print-advertised price that's lower than shown in our catalog, we'll make it right, immediately. And to thank you for the heads-up, we'll beat their price by 10%. From the smallest order to our very largest customer, everyone saves, and saves big by working with Jameco!

We're so proud of our prices, we make it easy to shop and compare.

Throughout this catalog, you'll notice side-by-side listings of name-brand and quality equivalent products and components, for your convenience as you "do the math."

It's why we've been growing since 1974, and it's why we come to work everyday: to bring you great products, at truly awesome, unbeatable prices! Guaranteed.



### Contact Information

Order Desk 24/7, 365 Days a Year

Phone: 1-800-831-4242

Fax: 1-800-237-6948

E-mail: [sales@Jameco.com](mailto:sales@Jameco.com)

Website [www.Jameco.com](http://www.Jameco.com)

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International Toll-Free Fax

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Indonesia: 1-803-015-237-6948

Brazil: 000-817-455-6119

New Zealand: 080-044-0470

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## ValuePro™ Means Top Components at Great Values, Backed By Jameco!



Our customers depend on Jameco for great components at awesome prices, and with ValuePro, we're taking that concept to the next level!

ValuePro is our new house brand, created specifically to provide our customers with a new standard of professional-grade electronic components at awesome prices. We're starting off with over 1,100 of your most-needed products, with many more to come. Of course, we still offer our wide selection of name-brands and generic equivalents. But to

become a ValuePro product, a component must pass our highest standards for quality. And when you build ValuePro products into your designs, you can trust that they'll be consistently reliable, compatible, available, and value-priced. Guaranteed. Thumb through pages 45-123 for details.

Also, check out our new line of ReliaPro™ power products, chosen and backed by Jameco to meet your need for rock-solid reliability in power products. See pages 150-154.



## Great Products at Your Fingertips, at the NEW [www.Jameco.com](http://www.Jameco.com)!

If you've visited our Web site recently, you've noticed a change!

In fact, [www.Jameco.com](http://www.Jameco.com) has undergone a complete remodeling, with the aim of making our site as intuitive and efficient as possible for you. Now all our products are neatly

organized for quick look-up in the left-hand menu bar, and a new Quick Order box lets you buy specific SKUs in an instant. We're working hard to offer great products at awesome prices on our website!

Register online & bookmark us today!



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Optoelectronic Components, LEDs, Lamps, Displays, etc.

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Caps, Resistors, Potentiometers, Inductors, Crystals, etc.

### Wire & Cable .....66-79

Bulk Wire & Cable, Assemblies, Wire & Cable Management, etc.

### Interconnects .....80-100

Adapters, Connectors, Terminal Blocks, Sockets, etc.

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Parallel and Serial LCD Modules

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Cameras, Monitors, Video Capture, etc.

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Test & Measurement, Tools, Soldering Equipment, etc.

### Electronic Design.....218-225

Programmers, Prototyping Systems, Breadboards, etc.

### Educational & Hobbyist .....226-237

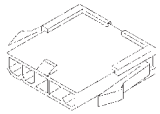
Robotics, Solar, Educational Kits, Books, etc.

### Order Info, Order Form, Product & Manufacturer Indices 238-243

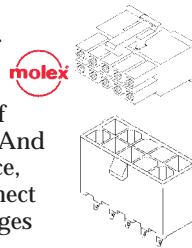
## PRICES

Prices are effective 10-11-04.  
Prices and discounts are subject to change without notice.

## More Molex!



In this catalog, we've added the Molex Mini-Fit Jr. Series to our line of rectangular connectors. This series is designed for high current/high density applications which require the design flexibility of wire-to-wire and wire-to-board interconnections. And there's nothing "mini" about the specs: these low engagement force, positive-lock sets can carry currents of up to 9.0A per circuit. Connect up with Molex and Jameco for powerful quality and value! See pages 88-89 for complete details.

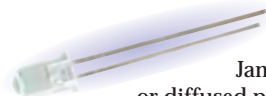


## Jameco Wins the "Relay Race" for Quality and Value!



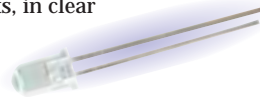
Are you looking for world-renown quality without the world-renown cost? Jameco now offers a family of low-cost relays that will prove themselves in high-demand, hard-usage applications like control equipment, vending machines, kitchen appliances and office machines. We're proud to offer these solid, affordable relays in our product line, and to announce that even more Jameco value-priced relays are on the way for future catalogs! Look for Jameco's awesome prices on page 116.

## Light Up Your Designs With HLMP-Style LEDs!



Based on the HLMP standard, these LEDs offer great brightness, superior viewing angles and a super color selection, at great Jameco prices. Choose from over 30 products, in clear or diffused packages, and add top-quality, high-reliability LED technology to your designs, at huge savings!

For LEDs see page 46.



## Index of Electronic Books

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Microcontrollers	Easy Microcontrol'n, Beginner's Guide .....	11
	Electric Motors and Control Techniques .....	103
	Microcontrol'n Apps, PIC Microcontroller Applications .....	11
	PIC BASIC Programming and Projects .....	227
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	Robot Builder's Bonanza .....	226
Computer	Robot Builder's Source Book .....	228
	Serial Communications PIC Applications .....	11
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	Rechargeable Batteries Application Handbook .....	163
	ITL Logic Data Book, Texas Instruments .....	15



## "Switch On" High Quality and Value With P&B Relays!



Flip to our expanded, in-stock selection of P&B relays, and take a look at our new, broader line of these fine devices.

P&B relays are known for their unparalleled quality, reliability and consistency, and now we've got even more of what you need. Whether your specialty is automotive, communications,



industrial, appliance or HVAC design, chances are we've got a P&B solution that's perfect for your needs!



Expanded selection of Potter & Brumfield relays are on pages 114-115.



## We're Expanding Our AMP Section With "Terminal" Velocity!

If you work with electricity, you need crimp terminals, splices and the tools to apply them, and AMP has long been the leader in this field of connections. Some might consider these parts to be commonplace and "forgettable,"



but you should never underestimate the importance of quality at every level. With

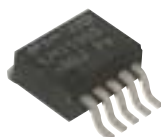


AMP, you get terminals that stay terminated, and splices that stay spliced, time after time, job after job. And with

Jameco, as always, you get unbeatable prices! For details see page 99.



## All New Analog Section, with the Jameco Difference!



We know you're designing smaller, with greater density and lower power demands, and at Jameco, we're constantly evolving our line of high-performance, new-technology analog components to meet your changing needs.

Visit this section of the catalog, and you'll see that we've reorganized our listings to make them even easier to use. Whether you're looking for audio comparators, temperature sensors, buffers, audio amps, LDOs, or any of our thousands of top-shelf components, one-stop shopping has never been easier! See pages 26-34.

## More AHC, More AHCT, Plus SOIC!

In this catalog, you'll notice we're continuing to expand our 74AHCxxx and the 74AHCTxxx advanced high-speed CMOS families. Plus, in response to your requests, Jameco provides most of these great ICs in your choice of packaging, either DIP or SOIC. Whether you go with name-brand TI or our major-brand value equivalents, you can now choose your package, and save with Jameco! For details see pages 16-17.



## We've Doubled DACs & ADCs!

In this catalog, we've literally doubled our selection of analog-to-digital and digital-to-analog converters. We have more from Analog Devices, more from TI, more from Motorola and Microchip! Now you can choose the on-chip features you want from an even broader array of converters, with the in-stock convenience and best-price guarantee of Jameco! See pages 27-28.



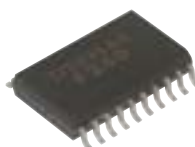
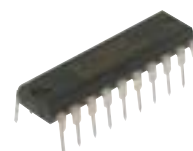
More than ever, Jameco's the place for top quality National Semiconductor parts! We've added an enormous new selection of linear components to our line, including a wide array from the major players in the semiconductor market, TI and National Semi. When your bill of materials calls for components from these industry leading name brands, trust Jameco to deliver them, in-stock and at guaranteed low, low prices! See pages 28-34.



National Semiconductor

## Jameco: The Logical Choice!

In this catalog, Jameco introduces two new logic families, the popular 74ABTxxx and 74Fxxx series. Whether you need the more general-purpose qualities of the F series or the high-performance BICMOS technology of the ABT line, Jameco is ready to deliver these chips at outstanding prices.



You'll save up to 10% on brand-name TI versions, and up to 20% on our functionally-equivalent mixed major brands.

Even more families will be added in future catalogs, so whatever you design, you can stay with Jameco for all your component needs. For complete line see pages 21-22.

## Eight Families of ICs, In Your Choice of Packages!



Jameco now carries 8 popular logic families, in your choice of standard-setting TI or major-brand equivalent ICs. In fact, we've now doubled our selection of TI families!

Whether your design demands ABT, AC, ACT, AHC, AHCT, F, HC, and HCT, DIP or low-profile, low-power SOIC, Jameco's got the components you need. And as always, this section of the catalog includes an easy-to-use cross-reference, so you can find what you need and calculate your savings, quickly and easily. See pages 13-22 for details.

TEXAS INSTRUMENTS



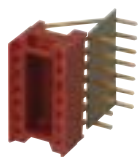
## For Microcontrollers, We've Got More Top PICs!

Jameco now offers an even broader selection of Microchip's most popular MCUs, including one-time-programmable (OTPs) and flash-programmable products, in both DIP and SMT packages. Watch this space! In every catalog, we'll continue adding new MCUs with the goal of bringing you toll-free, one-stop access to all the microcontrollers you need: more flash-memory MCUs, more package varieties, and a wider range of features and capabilities! And as always, Jameco provides unparalleled tech support, 99% in-stock inventory, and our low-price guarantee to ensure that you always get the best deal on the best MCUs. For details see pages 9-11.



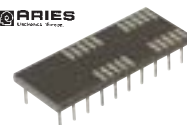
MICROCHIP

## A Versatile New "Angle" On Circuit Design and Prototyping!

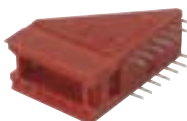


As circuit designs get smaller and tighter, let Aries adapters make your work smoother and easier!

**ARIES**



Whatever your design challenge, there's probably an Aries IC adapter to help you overcome it. Need the ease and flexibility of DIP socketing when designing with surface-mount chips? Want to save space by mounting ICs at a vertical or horizontal angle to the board? Check out our hand-picked selection of innovative Aries sockets and adapters, and you'll see the advantages! See pages 89 & 245.



## Drive a "Hard" Bargain, With Seagate Quality!

If you're adding or replacing a hard drive, Seagate is the way to go! First, choose from our wide selection of Serial ATA drives, with jumperless configuration, 150 Mbytes/sec transfer, thin-cable convenience and hot-swap capability. Then, count up your savings! Jameco offers the most popular drives in 80 GB to 160 GB sizes, all running at 7200 rpm and with 8.5 ms seek times, and all at unbeatable prices. Choose Seagate for quality and reliability, Serial ATA for its high-tech advantages, and Jameco for service, selection, and guaranteed value in hard drives! For details see page 167.



Seagate

## Replace That Old Keyboard & Mouse With New, Trackball Technology!



We all want to work smarter, not harder, and this keyboard has been designed from the ground up to make your computing life easier and more fun! With its big, smooth-spinning trackball right on the keyboard, the Scorpius-35 combines

outstanding form with superior function. This keyboard feels absolutely great, with positive, tactile feedback and the best layout and features for quick typists. And if you only want to replace your mouse, choose the Libra-90 stand-alone trackball for a new experience in precision pointing and clicking! Complete specs on pages 170 & 171.



Part No.	Type	Interface	Description	Size (L" x W" x H")	Price
128718CR	Scorpius 35PU/NET	PS/2	Keyboard with trackball	19.0 x 6.8 x 1.4 .....	\$99.95
305082CR	Libra-90	PS/2	Trackball w/ USB adapter	5.6 x 4.7 x 1.9 .....	29.95

## Home Networking at Blow-Out Prices!



Share your broadband connection, share files, and at these prices, share the savings!

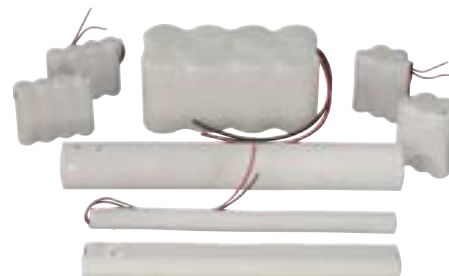
Intel technology links your PCs through existing phone lines, for no-hassle, wiring-free ease. This network is also a snap to configure, and comes with simple, step-by-step set-up instructions. But the big story is the price! Where else can you pick up a complete, full-featured home networking package, from an industry-leading manufacturer, for the cost of a cup of coffee and a cinnamon roll? Only from Jameco! See page 173.

Only  
\$9.95

## Value Charged, Power-Packed Battery Packs

**JAMECO**  
**ValuePro**

See page 1 for more details on our new ValuePro™ brand.



Jameco now offers over 150 versatile ValuePro NiCAD and NiMH packs. Whether your application requires 700 mAh, 1000 mAh, 1800 mAh, 2200 mAh, or a whopping 5000 mAh, AA to SC to D cell, we've got the single-cell or pack for you.

But we don't stop there! Jameco supplies assembled packs in virtually any shape and configuration you can imagine, for unparalleled design flexibility. Whether you're stocking up on replacement packs for devices around your home or shop, or creating a product with rechargeable power, we've got the pack you need! For battery pack details see page 163.



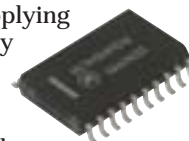
## From IrDA to PCM, We've Got More Encoders & Decoders!



You've asked for more selection in encoders/decoders, and so here they are! Take a look through our ever-expanding line of

these quality components, including even more from TI and Motorola.

We're dedicated to supplying components to precisely match your needs and applications, with the assurance of in-stock availability, unmatched customer service and guaranteed low prices! See page 26 for details.





## Big News in Small Astrodyne Power Supplies!

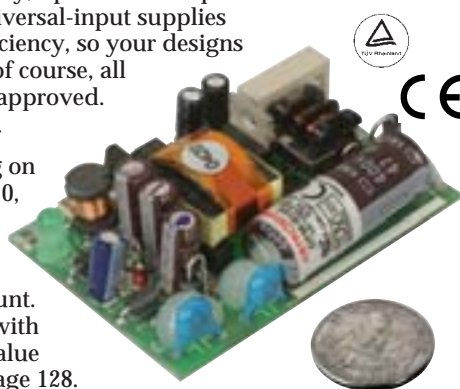


We're expanding our selection of popular Astrodyne power supplies with 16 products in the four most-needed power ranges: 5, 10, 15 and 20 watts. If you're interested in saving space and saving money, you've come to the right place!

These Astrodyne units pack a lot of performance into a very high power density, up to 3.6 watts per cubic inch. All of

these open-frame, universal-input supplies deliver up to 78% efficiency, so your designs will run cooler. And of course, all are UL, TUV and CE approved.

We offer two types of mounting, depending on configuration: the 4, 10, and 15-watt units are pin-mounted, and the 20 watt features a chassis mount. Power your projects with Astrodyne, and the value leader, Jameco! See page 128.



## Mean Well and Jameco — More Bang For Your Buck!

In this catalog, we've added to our already broad line of quality Mean Well power supplies. In this section, you'll see new open-frame and enclosed products that deliver higher power for demanding applications.

In every Jameco catalog you receive, expect more power, smaller size, and greater value from the leaders in power supply delivery, Mean Well and Jameco! For details see pages 129-145.



## Private Labeling

When you place your order for 500 or more we can private-label the slim-line wall adapters on page 150 for you at no extra charge. Branding them with your company name and phone number will give them a more professional finish. You won't find a lower price on a switching wall adapter, and in this space-saving, customer-friendly format, these small wonders are a powerful bargain you should not pass up!



## Check Out These Sample Price Comparisons\*

Product Description	Jameco Part No.	Jameco Page #	Jameco Price	Digi-Key Corp.	Mouser Electronics	Newark InOne	Minimum Savings
Cap, Tant, 100µf, 6.3V	33700CR	54	\$1.09	\$2.60	\$2.40	\$1.65	33.9%
Cap, Elect, 470µF, 63V, Radial	158465CR	52	\$0.30	\$1.50	\$1.23	\$1.21	75.2%
Cermet Pot, 50k, 3362P-503	254027CR	62	\$0.59	\$0.83	\$0.83	\$0.98	28.9%
Ligitek LSD5111-11, 7-Seg LED	199531CR	48	\$0.99	\$2.31	\$4.05	Not Offered	57.1%
MOC3010 Opto-isolator	26278CR	44	\$0.56	\$0.84	\$0.87	\$0.836	33.0%
EEPROM, 93C46, DIP	102058CR	6	\$0.35	\$0.43	\$0.41	\$0.486	14.6%
Linear, LM317LM, SOIC	193551CR	28	\$0.33	\$0.67	\$0.53	\$0.68	37.7%
TI logic, SN74HCT240N, DIP	250827CR	20	\$0.35	\$0.56	\$0.39	Not Offered	10.3%
Logic, 74HCT240, DIP	45014CR	20	\$0.32	\$0.56	\$0.39	Not Offered	17.9%
Logic, 74ALS240A, DIP	245753CR	23	\$0.49	\$0.80	\$0.99	\$0.80	38.8%
Logic, 74AHC374, DIP	214210CR	16	\$0.26	\$0.48	Not Offered	\$0.48	45.8%
Logic, 74AC244, DIP	211908CR	14	\$0.29	\$0.50	\$0.87	\$0.50	42.0%
MOSFET, IRF830	210585CR	36	\$0.77	Not Offered	\$1.06	\$1.50	27.4%
DC Fan, 43CFM, 12VDC, 3.15"	172460CR	125	\$9.95	\$13.08	\$11.15	Not Offered	10.8%
Switcher, Mean Well, 150W	123393CR	137	\$64.79	\$136.20	\$154.13	Not Offered	52.4%
Term Block, 12 pos, 10mm	215028CR	98	\$1.89	\$8.64	\$3.00	\$4.58	37.0%

\* These are single unit prices taken from each party's website on September 13, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

## Over 1,350 New Products!

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Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## EPROM

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
39909CR	2708	DIP-24	1k x 8 450ns (±5V, +12V)	\$4.99	\$4.29	\$3.19
40002CR	2716	DIP-24	2k x 8 450ns (25V)	4.09	3.69	3.29
39706CR	27C16	DIP-24	2k x 8 450ns (25V) CMOS	6.99	5.99	4.99
40011CR	2716-1	DIP-24	2k x 8 350ns (25V)	6.49	5.89	5.39
265931CR	27C16-200	DIP-24	2k x 8 200ns UVPROM (5V)	3.99	3.59	2.99
265965CR	27C16-150	DIP-24	2k x 8 150ns UVPROM (5V)	7.19	5.49	4.69
40096CR	2732	DIP-24	4k x 8 450ns (25V)	6.49	5.49	4.19
39765CR	27C32	DIP-24	4k x 8 450ns (25V) CMOS	5.49	4.19	2.89
40133CR	2732A-45	DIP-24	4k x 8 450ns (21V)	3.99	3.69	3.29
33591CR	TMS2532A	DIP-24	4k x 8 450ns (21V)	3.99	3.59	3.19
114876CR	2732B	DIP-24	4k x 8 450ns (12.5V)	4.19	3.79	3.39
40125CR	2732A-25	DIP-24	4k x 8 250ns (21V)	4.99	4.49	3.99
40109CR	2732A-20	DIP-24	4k x 8 200ns (21V)	6.49	5.99	5.49
265990CR	27C32-200	DIP-24	4k x 8 200ns UVPROM (5V)	5.99	4.99	3.99
266001CR	27C32-150	DIP-24	4k x 8 150ns UVPROM (5V)	6.99	5.99	4.99
40205CR	2764-25	DIP-28	8k x 8 250ns (21V)	5.29	4.79	4.29
40248CR	2764A-25	DIP-28	8k x 8 250ns (12.5V)	3.99	3.69	3.09
39845CR	27C64-25	DIP-28	8k x 8 250ns (12.5V) CMOS	4.49	4.09	3.79
40192CR	2764-20	DIP-28	8k x 8 200ns (21V)	5.29	4.79	4.29
40230CR	2764A-20	DIP-28	8k x 8 200ns (12.5V)	4.49	4.09	3.69
74608CR	27C64-20	DIP-28	8k x 8 200ns (12.5V) CMOS	4.69	4.29	3.79
39829CR	27C64-15	DIP-28	8k x 8 150ns (12.5V) CMOS	3.79	3.49	2.99
105304CR	27C64-12	DIP-28	8k x 8 120ns (12.5V) CMOS	6.49	5.99	5.49
266036CR	27C64-100	DIP-28	8k x 8 100ns UVPROM (5V)	4.09	3.59	2.69
266044CR	27C64-70	DIP-28	8k x 8 70ns UVPROM (5V)	5.39	5.19	4.39
266052CR	CY7C264-55WC	DIP-24	8k x 8 55ns UVPROM (5V)	6.49	5.99	5.49
39933CR	27128-25	DIP-28	16k x 8 250ns (21V)	\$5.95	4.20	3.90 3.50
39984CR	27128A-25	DIP-28	16k x 8 250ns (12.5V)	4.49	4.09	3.69
39685CR	27C128-25	DIP-28	16k x 8 250ns (12.5V) CMOS	3.99	3.59	3.29
39968CR	27128A-20	DIP-28	16k x 8 200ns (12.5V)	4.69	4.19	3.79
101101CR	27C128-20	DIP-28	16k x 8 200ns (12.5V) CMOS	\$4.69	4.39	3.95 3.56
39950CR	27128A-15	DIP-28	16k x 8 150ns (12.5V)	4.49	3.99	3.59
39677CR	27C128-15	DIP-28	16k x 8 150ns (12.5V) CMOS	4.29	3.89	3.49
87935CR	27C128-12	DIP-28	16k x 8 120ns (12.5V) CMOS	4.69	4.09	3.69
266061CR	27C128-100	DIP-28	16k x 8 100ns (12Vpp)	4.89	4.29	3.89
149665CR	27C128-70	DIP-28	16k x 8 70ns (12.5V)	4.89	4.29	3.89
40061CR	27256-25	DIP-28	32k x 8 250ns (12V)	3.19	2.99	2.69
39731CR	27C256-25	DIP-28	32k x 8 250ns (12.5V) CMOS	3.19	2.99	2.69
40045CR	27256-20	DIP-28	32k x 8 200ns (12.5V)	3.69	3.29	2.99
39722CR	27C256-20	DIP-28	32k x 8 200ns (12.5V) CMOS	2.59	2.49	2.19
40037CR	27256-15	DIP-28	32k x 8 150ns (12.5V)	3.29	3.09	2.79
39714CR	27C256-15	DIP-28	32k x 8 150ns (12.5V) CMOS	2.09	1.79	1.59
65904CR	27C256-12	DIP-28	32k x 8 120ns (12.5V) CMOS	2.09	1.99	1.79
112740CR	27C256-10	DIP-28	32k x 8 100ns (12.5V) CMOS	3.29	3.09	2.59
140476CR	27C256-70	DIP-28	32k x 8 70ns (12.5V) CMOS	\$3.69	3.39	3.19 2.99
266079CR	27C256-55	DIP-28	32k x 8 55ns UVPROM (5V)	4.99	4.79	4.29
40168CR	27512-25	DIP-28	64k x 8 250ns (12.5V)	3.69	3.39	3.09
39802CR	27C512-25	DIP-28	64k x 8 250ns (12.5V) CMOS	4.75	4.39	3.95
40150CR	27512-20	DIP-28	64k x 8 200ns (12.5V)	2.69	2.39	2.19
39790CR	27C512-20	DIP-28	64k x 8 200ns (12.5V) CMOS	3.09	2.89	2.59
39781CR	27C512-15	DIP-28	64k x 8 150ns (12.5V) CMOS	2.09	1.99	1.79
39773CR	27C512-12	DIP-28	64k x 8 120ns (12.5V) CMOS	\$2.09	1.69	1.59 1.49
131959CR	27C512-10	DIP-28	64k x 8 100ns (12.5V) CMOS	\$3.39	3.19	2.99 2.49
175206CR	27C512-90	DIP-28	64k x 8 90ns (12.5V) CMOS	\$3.45	2.79	2.59 2.39
203625CR	27C512-70	DIP-28	64k x 8 70ns (12.5V) CMOS	2.89	2.49	2.19
266087CR	27C512-55	DIP-28	64k x 8 55ns (12Vpp)	3.59	3.39	3.19
203617CR	27C512-45	DIP-28	64k x 8 45ns (12.5V) CMOS	4.09	3.79	3.49
118148CR	27C1024-15	DIP-40	64k x 16 150ns (12.5V) CMOS	\$5.95	5.29	4.79 4.39
203641CR	27C1024-12	DIP-40	64k x 16 120ns (12.5V) CMOS	5.29	4.79	4.39
203633CR	27C1024-80	DIP-40	64k x 16 80ns (12.5V) CMOS	5.29	4.79	4.39
39669CR	27C010-20	DIP-32	128k x 8 200ns (12.5V) CMOS	2.39	2.29	1.99
39651CR	27C010-15	DIP-32	128k x 8 150ns (12.5V) CMOS	2.59	2.19	1.89
74624CR	27C010-12	DIP-32	128k x 8 120ns (12.5V) CMOS	\$3.69	2.99	2.59 1.99
79231CR	27C010-10	DIP-32	128k x 8 100ns (12.5V) CMOS	3.49	3.09	2.49
137699CR	27C010-80	DIP-32	128k x 8 80ns (12.5V) CMOS	\$5.12	3.99	3.59 2.99
146149CR	27C010-70	DIP-32	128k x 8 70ns (12.5V) CMOS	2.49	2.29	2.09
266095CR	27C010-55	DIP-32	128k x 8 55ns (12Vpp)	5.29	4.89	4.49

## EPROM (Continued)

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
137701CR	27C010-45	DIP-32	128k x 8 45ns (12.5V) CMOS	\$6.09	\$3.99	\$3.59 \$2.99
65681CR	27C020-20	DIP-32	256k x 8 200ns (12.5V) CMOS	\$6.63	4.99	4.59 3.99
65699CR	27C020-15	DIP-32	256k x 8 150ns (12.5V) CMOS	5.29	4.99	4.49
78852CR	27C020-12	DIP-32	256k x 8 120ns (12.5V) CMOS	5.29	4.89	4.49
156267CR	27C020-10	DIP-32	256k x 8 100ns (12.5V) CMOS	4.09	3.89	3.49
203650CR	27C020-80	DIP-32	256k x 8 80ns (12.5V) CMOS	\$7.15	4.39	3.99 3.89
266108CR	27C020-70	DIP-32	256k x 8 70ns UVPROM (5V)	\$6.55	4.89	4.49 3.39
266116CR	27C020-55	DIP-32	256k x 8 55ns UVPROM (5V)	6.89	6.55	6.21
127933CR	27C4096-12	DIP-40	256k x 16 120ns (12.5V) CMOS	9.29	8.69	7.89
85462CR	27C040-15	DIP-32	512k x 8 150ns (12.5V) CMOS	6.59	6.09	5.59
102293CR	27C040-12	DIP-32	512k x 8 120ns (12.5V) CMOS	6.59	6.09	5.59
111780CR	27C040-10	DIP-32	512k x 8 100ns (12.5V) CMOS	7.09	6.49	5.89
203676CR	27C040-80	DIP-32	512k x 8 80ns (12.5V) CMOS	7.09	6.49	5.89
266124CR	27C040-70	DIP-32	512k x 8 70ns UVPROM (5V)	6.05	5.19	5.15
266132CR	27C040-55	DIP-32	512k x 8 55ns UVPROM (5V)	\$12.09	9.49	8.59 7.59
203668CR	27C040-45	DIP-32	512k x 8 45ns (12.5V) CMOS	\$12.65	9.99	9.09 8.09
140003CR	27C080-12	DIP-32	1M x 8 120ns (12.5V) CMOS	12.59	11.59	10.59
265842CR	27C800-12	DIP-42	1M x 8 120ns UVPROM (5V)	12.59	11.59	10.59
156275CR	27C080-10	DIP-32	1M x 8 100ns (12.5V) CMOS	12.99	11.99	10.99
203684CR	27C080-90	DIP-32	1M x 8 90ns (12.5V) CMOS	12.99	11.99	10.99
156283CR	27C160-10	DIP-42	2M x 8 100ns (12.5V) CMOS	19.99	18.99	17.99

See EPROM programmers and erasers on pages 224 & 225

## EPROM Accessories

Part No.	Cross Ref.	Description	1	5
206922CR	EP1D	1.1" x 0.46" EPROM & DIP window labels UV opaque, accepts ink or pencil (168 labels per pack)	\$6.95	\$6.25
13864CR	CF2	Conductive foam (12" x 24" x .25") hard black	9.29	8.35
66042CR	DE1	UVP portable EPROM eraser, pg 225	54.95	49.95
15712CR	DE4	8-chip UV-EPROM eraser, pg 225	119.95	109.95

## EEPROM

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
276584CR	24C00	SOIC-8	16 x 8 Serial	\$ .32	\$ .31	\$ .29
276568CR	24C00	DIP-8	16 x 8 Serial	.26	.25	.23
200627CR	24C44	DIP-8	16 x 16 Serial CMOS	1.99	1.69	1.27
276955CR	93C46	SOIC-8	64 x 16 3-wire serial	.37	.34	.29
102058CR	93C46	DIP-8	64 x 16 Serial (5V)	.35	.30	.25
276621CR	24C01	SOIC-8	128 x 8 2-wire serial	.29	.27	.20
276592CR	24C01	DIP-8	128 x 8 2-wire serial	.36	.29	.25
276971CR	93C56	SOIC-8	128 x 16 3-wire serial	.54	.50	.41
108855CR	93C56	DIP-8	128 x 16 Serial (5V)	.39	.35	.31
276630CR	24C02	SOIC-8	256 x 8 2-wire serial	.37	.36	.27
108839CR	24C02P	DIP-8	256 x 8 Serial CMOS	.47	.40	.30
276980CR	93C66	SOIC-8	256 x 16 3-wire serial	.37	.36	.32
200598CR	93C66	DIP-8	256 x 16 Serial (5V)	.69	.62	.55
276648CR	24C04	SOIC-8	512 x 8 2-wire serial	.34	.27	.24
108847CR	24C04P	DIP-8	512 x 8 Serial CMOS	.89	.79	.69
276998CR	93C76	SOIC-8	512 x 16 Microwire serial	.50	.48	.45
277000CR	93C76	DIP-8	512 x 16 Microwire serial	.58	.55	.52
276664CR	24C08	SOIC-8	1k x 8 2-wire serial	.32	.31	.29
200547CR	24C08-10	DIP-8	1k x 8 Serial CMOS	.89	.79	.69
277018CR	93C86	SOIC-8	1k x 16 Microwire serial	.51	.39	.36
200601CR	93C86	DIP-8	1k x 16 Serial (5V)	.69	.59	.44
276681CR	24C16	SOIC-8	2k x 8 2-wire serial	.45	.42	.37
200555CR	24C16-10	DIP-8	2k x 8 Serial CMOS	1.19	1.05	.79
276699CR	28C16	SOIC-24	2k x 8 Parallel	2.35	1.91	1.69
74691CR	28C16A-25	DIP-24	2k x 8 250ns (5V) CMOS	3.99	3.69	3.39
276710CR	28C17	SOIC-28	2k x 8 Parallel	3.95	2.69	2.45
276701CR	28C17	DIP-28	2k x 8 Parallel	2.29	2.05	1.95
40416CR	2817A-25	DIP-28	2k x 8 250ns 5V read/write	7.95	7.15	6.49
276728CR	24C32	SOIC-8	4k x 8 2-wire serial	.56	.55	.48
200563CR	24C32-10	DIP-8	4k x 8 Serial CMOS	1.79	1.69	1.39
276744CR	24C64	SOIC-8	8k x 8 2-wire serial	.66	.64	.57
200619CR	24C65	DIP-8	8k x 8 Serial CMOS	1.89	1.69	1.49
276752CR	28C64	SOIC-28	8k x 8 EEPROM	3.69	3.49	3.43



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## EEPROM (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
74827CR	28C64A-25	DIP-28	8k x 8 250ns, 5V CMOS	\$4.49	\$4.05	\$3.65
40475CR	2865A	DIP-28	8k x 8 250ns 5V read/write	4.95	4.49	4.05
276787CR	24C128	SOIC-8	16K x 8 2-wire serial	1.05	.99	.89
200571CR	24C128-10	DIP-8	16k x 8 Serial CMOS	1.79	1.49	1.33
276808CR	24C256	SOIC-8	32k x 8 2-wire serial	1.45	1.41	1.25
200580CR	24C256-10	DIP-8	32k x 8 Serial CMOS	3.19	2.39	2.15
276816CR	28C256	SOIC-28	32k x 8 Paged parallel CMOS	8.49	7.69	7.05
74878CR	28C256-25	DIP-28	32k x 8 250ns CMOS	8.75	7.45	5.59
74843CR	28C256-15	DIP-28	32k x 8 150ns CMOS	8.99	6.89	6.19
276875CR	24C512	SOIC-8	64k x 8 2-wire serial CMOS	2.65	2.51	2.29
276832CR	24C512	DIP-8	64k x 8 2-wire serial CMOS	2.59	2.39	1.99
276891CR	28C512	DIP-32	64k x 8 Parallel CMOS	13.15	10.65	9.35
276904CR	28C512	PLCC-32	64k x 8 Parallel CMOS	13.15	10.65	9.35
276921CR	24C1024	SOIC-8	128k x 8 2-wire serial CMOS	7.59	5.79	5.29
276912CR	24C1024	DIP-8	128k x 8 2-wire serial CMOS	4.89	6.79	5.19
276939CR	28C010	DIP-32	128k x 8 Paged parallel CMOS	24.79	23.55	21.19
276947CR	28C010	PLCC-32	128k x 8 Paged parallel CMOS	24.79	23.59	21.19
242253CR	28C010-15	DIP-32	128k x 8 150ns, 5V CMOS	29.41	28.00	27.00

## OTP/PROM



Part No.	Cross Ref.	Pkg.	Description	1	10	100
48531CR	74S188	DIP-16	32 x 8 Open collector (27S18)	\$4.39	\$3.95	\$3.45
48717CR	74S288	DIP-16	32 x 8 Tri-st. (27S19/TBP18S030N)	7.39	6.39	5.49
27844CR	N82S23	DIP-16	32 x 8 PROM (OC) (27S18)	5.99	5.39	4.89
27764CR	N82S123	DIP-16	32 x 8 PROM tri-state (27S19)	8.89	8.49	8.09
48696CR	74S287	DIP-16	256 x 4 Tri-state (TBP24S10N)	8.95	7.85	7.09
48805CR	74S387	DIP-16	256 x 4 Open collector (TBP24A10N)	3.10	3.05	3.00
27772CR	N82S126	DIP-16	256 x 4 PROM (OC) (27S20)	6.89	5.89	5.29
27781CR	N82S129	DIP-16	256 x 4 PROM tri-state (27S21)	7.89	6.89	6.29
48910CR	74S571	DIP-16	512 x 4 Tri-state (27S13)	5.69	5.49	5.29
27799CR	N82S131	DIP-16	512 x 4 PROM tri-state (27S13)	7.99	6.99	5.99
48928CR	74S573	DIP-18	1k x 4 Tri-state (27S33)	3.39	2.89	2.59
27801CR	N82S137	DIP-18	1k x 4 PROM tri-state (27S33)	4.99	4.29	3.19
27810CR	N82S181	DIP-24	1k x 8 Bipolar PROM tri-state	6.95	5.59	4.89
27828CR	N82S185	DIP-18	2k x 4 PROM tri-state	4.99	3.90	3.10
27836CR	N82S191	DIP-24	2k x 8 PROM tri-state	6.89	6.29	5.69
266212CR	27C64A-20	PLCC-32	8k x 8 200ns CMOS	2.19	2.09	1.69
266247CR	27C256-20	PLCC-32	32k x 8 200ns CMOS	2.19	1.59	1.29
266255CR	27C256-15	PLCC-32	32k x 8 150ns CMOS	1.69	1.49	1.39
266280CR	27C256-10	PLCC-32	32k x 8 100ns CMOS	1.99	1.79	1.69
266319CR	27C256-70	PLCC-32	32k x 8 70ns CMOS	2.09	1.99	1.89
266327CR	27C256-55	PLCC-32	32k x 8 55ns CMOS	2.39	2.29	1.89
266335CR	27C512-20	PLCC-32	64k x 8 200ns CMOS	1.79	1.69	1.49
266343CR	27C512-15	PLCC-32	64k x 8 150ns CMOS	1.89	1.79	1.59
203730CR	27C512-10 PLCC	PLCC-32	64k x 8 100ns (12.5V) CMOS	1.99	1.89	1.79
203692CR	27C512-10TIP	DIP-28	64k x 8 100ns (12.5V) CMOS	2.19	1.99	1.89
266351CR	27C512-70	PLCC-32	64k x 8 70ns CMOS	2.29	2.19	1.99
266386CR	27C512-55	PLCC-32	64k x 8 55ns CMOS	2.49	2.39	2.19
266394CR	27C010-20	PLCC-32	128k x 8 200ns CMOS	1.49	1.29	1.19
266790CR	27C010-15	PLCC-32	128k x 8 150ns CMOS	1.59	1.39	1.29
203705CR	27C010-10TIP	DIP-32	128k x 8 100ns (12.5V) CMOS	2.29	2.19	1.99
203748CR	27C010-10 PLCC	PLCC-32	128k x 8 100ns (12.5V) CMOS	1.35	1.25	1.15
266802CR	27C010-70	PLCC-32	128k x 8 70ns CMOS	2.29	2.19	1.99
266811CR	27C010-55	PLCC-32	128k x 8 55ns CMOS	2.40	2.30	2.20
266888CR	27C020-15	PLCC-32	256k x 8 150ns CMOS	3.89	3.69	3.29
203713CR	27C020-10TIP	DIP-32	256k x 8 100ns (12.5V) CMOS	3.70	3.20	2.80
203756CR	27C020-10 PLCC	PLCC-32	256k x 8 100ns (12.5V) CMOS	3.79	3.69	3.29
266853CR	27C020-20	PLCC-32	256k x 8 200ns (12V) CMOS	3.69	3.49	3.19
267101CR	27C020-70	PLCC-32	256k x 8 70ns CMOS	3.89	3.79	3.19
267135CR	27C020-55	PLCC-32	256k x 8 55ns CMOS	3.99	3.89	3.19
267160CR	27C040-15	PLCC-32	512k x 8 150ns CMOS	5.49	4.89	4.69
203764CR	27C040-10 PLCC	PLCC-32	512k x 8 100ns (12.5V) CMOS	5.09	4.19	4.09

## OTP/PROM (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
203721CR	27C040-12 OTP	DIP-32	512k x 8 120ns (12.5V) CMOS	\$3.55	\$3.25	\$2.95
267186CR	27C040-70	PLCC-32	512k x 8 70ns CMOS	4.69	4.29	4.21
267194CR	27C040-55	PLCC-32	512k x 8 55ns CMOS	9.00	8.50	8.00
267303CR	27C080-10	PLCC-32	1M x 8 100ns CMOS	16.50	16.00	15.50
267215CR	27C080-15	PLCC-32	1M x 8 150ns (12V) CMOS	7.65	7.25	6.55
267320CR	27C080-55	PLCC-32	1M x 8 55ns CMOS	16.50	16.00	15.50
267389CR	27C160-10	PLCC-44	2M x 8 100ns CMOS	16.99	15.99	13.99

## Flash Memory



Part No.	Cross Ref.	Pkg.	Description	1	10	100
242552CR	29C512-12	DIP-32	64k x 8 120ns (5V) CMOS	\$4.59	\$3.69	\$3.19
242561CR	29F512-90	DIP-32	64k x 8 90ns (5V) CMOS	4.70	3.80	3.36
242579CR	29F512-70	DIP-32	64k x 8 70ns (5V) CMOS	5.09	4.89	4.49
74771CR	28F010-15	DIP-32	128k x 8 150ns (12V) CMOS	6.95	6.25	5.65
242587CR	29F010-120	DIP-32	128k x 8 120ns (5V) CMOS	2.59	2.49	2.19
242595CR	29F010-90	DIP-32	128k x 8 90ns (5V) CMOS	4.39	4.09	3.79
242608CR	29F010-70	DIP-32	128k x 8 70ns (5V) CMOS	6.09	4.99	4.49
74835CR	28F020-15	DIP-32	256k x 8 150ns (12V) CMOS	7.95	7.15	6.45
242616CR	29F020-12	DIP-32	256k x 8 120ns (5V) CMOS	6.19	4.79	4.49
242624CR	29F020-90	DIP-32	256k x 8 90ns (5V) CMOS	8.69	6.99	6.09
242659CR	29F040-120	DIP-32	512k x 8 120ns (5V) CMOS	11.79	8.69	7.99
242667CR	29F040-90	DIP-32	512k x 8 90ns (5V) CMOS	7.59	7.19	6.79
277211CR	29F800-70	TSOP-48	1M x 8 70ns (5V) top boot	3.15	2.75	2.09
277261CR	29F800-70	TSOP-48	1M x 8 70ns (5V) bottom boot	3.15	2.75	2.09
277270CR	29F800-120	TSOP-48	1M x 8 120ns (5V) top boot	3.55	3.45	2.99
277288CR	29F800-120	TSOP-48	1M x 8 120ns (5V) bottom boot	7.35	6.59	5.95
277309CR	29F016-70	TSOP-48	2M x 8 70ns (5V) top boot	4.35	2.85	2.35
277368CR	29F320-70	TSOP-48	4M x 8 70ns (5V) top boot	8.69	7.29	4.81
277405CR	29F640-110	TSOP-56	8M x 8 110ns (5V)	12.39	11.15	10.49
277448CR	28F128-150	TSOP-56	16M x 8 150ns (5V)	21.39	16.89	13.75

## ST7 Flite Flash Memory



Part No.	Cross Ref.	Pkg.	Description	1	10	100
288139CR	ST7FLITE29F2B6	DIP-20	8-bit MCU w/ flash, 8k ROM, 15 I/O, 8MHz, A/D	\$4.25	\$3.69	\$3.35
288147CR	ST7FLITE29F2M6	SOIC-20	8-bit MCU w/ flash, 8k ROM, 15 I/O, 8MHz, A/D	4.25	3.69	3.35

## Dynamic and Video RAM



Part No.	Cross Ref.	Pkg.	Description	1	10	100
41339CR	4116-15	DIP-16	16k x 1 150ns (MM5290J-1R)	\$ .99	\$ .89	\$ .80
41662CR	4164-150	DIP-16	64k x 1 150ns (MCM6665-15)	.59	.53	.48
41574CR	41464-10	DIP-18	64k x 4 100ns (HY53C464S-10)	1.69	1.65	1.59
41272CR	41256-150	DIP-16	256k x 1 150ns (P21256-15)	.69	.59	.49
41398CR	41256-120	DIP-16	256k x 1 120ns (MB81256-12)	.73	.65	.59
42315CR	514256P-80	DIP-20	256k x 4 80ns (UPD424256-80)	2.49	2.25	2.05
93374CR	514256P-70	DIP-20	256k x 4 70ns (TC514256P-70)	2.79	2.49	2.19
128688CR	HM514260	SOJ	256k x 16 70ns	3.39	2.88	2.16
42219CR	511000P-10	DIP-18	1M x 1 100ns (M5M4C1000-10)	2.25	1.99	1.79

## Static RAM



Part No.	Cross Ref.	Pkg.	Description	1	10	100
38931CR	2111-1	DIP-18	256 x 4 500ns (AM9111APC)	\$1.69	\$1.44	\$1.08
42198CR	5101	DIP-22	256 x 4 450ns (CMOS)	7.99	7.19	6.49
38957CR	2114N	DIP-18	1k x 4 450ns (9114BPC)	2.29	1.99	1.79
43238CR	6514	DIP-18	1k x 4 350ns CMOS (M58981P)	3.95	3.65	3.35
38973CR	2114N-2	DIP-18	1k x 4 200ns (9114EPC) (U214D20)	2.49	2.09	1.89
38981CR	2114N-2L	DIP-18	1k x 4 200ns low power	2.49	2.25	2.05
243475CR	MBM104174A-10	DIP-24	1k x 4 100ns ECL asynchronous	3.49	2.99	2.49
38746CR	DS16-20	DIP-24	2k x 8 200ns (MB8128-20)	1.39	1.18	.88
114260CR	DS1220Y-150	DIP-24	2k x 8 150ns 4.25V WP	11.95	10.95	9.85
25911CR	MK48Z02B-15	DIP-24	2k x 8 150ns (16kB) zero-power RAM	6.89	6.39	5.79
42809CR	6116P-3	DIP-24	2k x 8 150ns (16kB) CMOS	1.49	1.29	1.09
42753CR	6116LP-3	DIP-24	2k x 8 150ns (16kB) LP CMOS	1.95	1.75	1.59
38738CR	2016-12	DIP-24	2k x 8 120ns (AM9128-12)	1.49	1.29	1.19
42796CR	6116P-2	DIP-24	2k x 8 120ns (16kB) CMOS	1.59	1.39	1.29
42788CR	6116P-1	DIP-24	2k x 8 100ns (16kB) CMOS	1.69	1.49	1.39

See page 166 for our complete  
selection of PC CPUs.

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Static RAM (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
42737CR	6116LP-1	DIP-24	2k x 8 100ns (16kB) LP CMOS	\$1.99	\$1.79	\$1.65
242675CR	6116-70	DIP-24	2k x 8 70ns (5V) CMOS async.	2.09	1.99	1.89
242683CR	CY7C128A-45	DIP-24	2k x 8 45ns (5V) CMOS async.	5.39	4.19	3.59
242691CR	CY7C128A-35	DIP-24	2k x 8 35ns (5V) CMOS async.	4.69	3.79	3.30
242704CR	CY7C128A-25	DIP-24	2k x 8 25ns (5V) CMOS async.	4.69	3.79	2.99
242712CR	CY7C128A-15	DIP-24	2k x 8 15ns (5V) CMOS async.	5.19	4.19	3.19
114307CR	DS1225Y-200	DIP-28	8k x 8 200ns, 4.25V WP	15.95	14.49	11.65
114278CR	DS1225AB-150	DIP-28	8k x 8 150ns, 4.62V WP	17.29	14.49	9.89
42930CR	6264P-12	DIP-28	8k x 8 120ns (64kB) CMOS	2.65	2.39	2.15
42892CR	6264LP-12	DIP-28	8k x 8 120ns (64kB) LP CMOS	2.79	2.49	2.19
42921CR	6264P-10	DIP-28	8k x 8 100ns (64kB) CMOS	2.59	2.29	1.99
42884CR	6264LP-10	DIP-28	8k x 8 100ns (64kB) LP CMOS	2.75	2.49	2.25
85121CR	6264LP-70	DIP-28	8k x 8 70ns (64kB) LP CMOS	3.39	3.05	2.75
242721CR	6264-55	DIP-28	8k x 8 55ns (5V) CMOS async.	3.29	2.59	2.09
242333CR	CY7C185-35	DIP-28	8k x 8 35ns (5V) CMOS async.	2.89	2.29	1.79
242341CR	CY7C185-25	DIP-28	8k x 8 25ns (5V) CMOS async.	2.89	2.29	1.79
242350CR	7C185-20	DIP-28	8k x 8 20ns 5V asynchronous	2.89	2.29	1.79
114323CR	DS1230Y-150	DIP-28	32k x 8 150ns, 4.37V WP	19.95	18.95	15.15
41988CR	43256-12L	DIP-28	32k x 8 120ns low power NEC	4.99	4.49	4.09
42850CR	62256LP-12	DIP-28	32k x 8 120ns low power CMOS	3.89	3.49	3.19
177113CR	DS1230Y-100	DIP-28	32k x 8 100ns, 4.37V WP	17.75	13.75	12.85
41970CR	43256-10L	DIP-28	32k x 8 100ns low power NEC	5.49	4.99	4.49
42833CR	62256LP-10	DIP-28	32k x 8 100ns low power CMOS	4.19	3.55	2.65
42876CR	62256LP-85	DIP-28	32k x 8 85ns low power CMOS	3.09	3.09	3.09
82472CR	62256LP-70	DIP-28	32k x 8 70ns low power CMOS	5.49	4.99	4.49
279814CR	62256S-70	SOJ-28	32k x 8 70ns 5V CMOS	1.59	1.48	1.36
242499CR	DS1230Y-70	DIP-28	32k x 8 70ns nonvol. 4.5V WP	16.59	15.29	13.99
242376CR	M5M5258P-35	DIP-28	32k x 8 35ns 5V asynchronous	1.99	1.59	1.19
279822CR	CY7C199-35V	SOP-28	32k x 8 35ns	\$1.75 1.59	1.29	1.09
279831CR	CY7C199-25V	SOP-28	32k x 8 25ns	1.65	1.39	1.05
279849CR	CY7C199-20V	SOJ-28	32k x 8 20ns	1.75	1.39	1.05
75037CR	UM61M256K-15	DIP-28	32k x 8 15ns hi speed CMOS (.3"W)	3.39	2.99	2.69
279857CR	62256S-15	SOJ-28	32k x 8 15ns	1.49	1.24	.92
279865CR	62256S-12	SOJ-28	32k x 8 12ns	1.85	1.49	1.12
103982CR	628128LP-85	DIP-32	128k x 8 85ns low power CMOS	8.49	7.49	6.79
131810CR	628128LP-70	DIP-32	128k x 8 70ns low power CMOS	8.99	7.39	6.69
279873CR	628128S-70	SOP-32	128k x 8 12ns	2.49	2.19	1.89
279911CR	CY7C109B-12V	SOJ-28	128k x 8 12ns	2.99	2.55	1.99
280014CR	625616S-70	SOP-44	256k x 16 70ns	7.39	6.89	6.35
280031CR	CY7C1041B-15V	SOJ-44	256k x 16 15ns	8.09	7.09	6.99
157538CR	628512LP-70	DIP-32	512k x 8 70ns low power CMOS	18.99	16.99	16.19
280049CR	628512S-70	SOP-32	512k x 8 70ns	3.45	3.25	3.05
280065CR	CY7C1049B-20V	SOJ-36	512k x 8 20ns	8.58	8.00	7.80

## Zilog Flash MCUs



Part No.	Cross Ref.	Pkg.	Description	1	10	100
280268CR	Z8F1601PM020SC	DIP-40	16kB ROM, 2kB RAM, 31 I/O, A/D	\$11.00	\$9.00	\$8.60
280276CR	Z8F1601VM020SC	PLCC-44	16kB ROM, 2kB RAM, 31 I/O, A/D	10.99	8.99	8.59
280284CR	Z8F1602VS020SC	PLCC-68	16kB ROM, 2kB RAM, 46 I/O, A/D	11.50	9.50	8.60
280292CR	Z8F2401PM020SC	DIP-40	24kB ROM, 2kB RAM, 31 I/O, A/D	12.50	10.50	9.85
280305CR	Z8F2401VM020SC	PLCC-44	24kB ROM, 2kB RAM, 31 I/O, A/D	12.50	10.50	9.85
280313CR	Z8F2402VS020SC	PLCC-68	24kB ROM, 2kB RAM, 46 I/O, A/D	13.00	11.00	9.85
280321CR	Z8F3201PM020SC	DIP-40	32kB ROM, 2kB RAM, 31 I/O, A/D	14.00	12.00	10.00
280330CR	Z8F3201VM020SC	PLCC-44	32kB ROM, 2kB RAM, 31 I/O, A/D	14.00	12.00	10.00
280348CR	Z8F3202VS020SC	PLCC-68	32kB ROM, 2kB RAM, 46 I/O, A/D	14.50	12.50	10.50
280356CR	Z8F4801PM020SC	DIP-40	48kB ROM, 4kB RAM, 31 I/O, A/D	15.50	13.50	11.00
280364CR	Z8F4801VM020SC	PLCC-44	48kB ROM, 4kB RAM, 31 I/O, A/D	15.50	13.50	11.00
280372CR	Z8F4802VS020SC	PLCC-68	48kB ROM, 4kB RAM, 46 I/O, A/D	16.00	14.00	11.50
280381CR	Z8F6401PM020SC	DIP-40	64kB ROM, 4kB RAM, 46 I/O, A/D	17.00	14.50	12.50
280399CR	Z8F6401VM020SC	PLCC-44	64kB ROM, 4kB RAM, 46 I/O, A/D	17.00	14.50	12.50
280401CR	Z8F6402VS020SC	PLCC-68	64kB ROM, 4kB RAM, 46 I/O, A/D	17.50	15.00	13.00

## Z8 OTP MCUs



Part No.	Cross Ref.	Pkg.	Description	1	10	100
281228CR	Z86E3016PSC	DIP-28	RAM/ROM Protect, 24 I/O lines	\$6.59	\$4.99	\$4.15
281236CR	Z86E3016VSC	PLCC-28	RAM/ROM Protect, 24 I/O lines	6.59	4.99	4.15

## Z8 OTP MCUs (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
281252CR	Z86E0812SSC1866	SOIC-18	ROM protect, 14 I/O lines	\$3.99	\$2.99	\$2.23
281279CR	Z86E0812PSC1866	DIP-18	ROM protect, 14 I/O lines	3.99	2.99	2.25
281287CR	Z86E0812PEC	DIP-18	ROM protect, 14 I/O lines	4.35	3.29	2.45
281295CR	Z86E0208SSC1925	SOIC-18	ROM protect, 14 I/O lines, 1 cntr/timer	1.89	1.65	1.45

## Zilog Z80 MPUs



Part No.	Cross Ref.	Pkg.	Description	1	10	100
35561CR	Z80	DIP-40	2.5MHz CPU (MK3880N/780C)	\$1.39	\$1.19	\$1.09
35596CR	Z80A	DIP-40	4MHz CPU (MK3880N-4/780C-1)	1.99	1.79	1.59
35609CR	Z80A-CTC	DIP-28	4MHz counter timer circuit (MK3882-4)	1.99	1.79	1.59
35625CR	Z80A-DART	DIP-40	4MHz dual asynchronous receiver/trans.	3.49	3.19	2.89
35641CR	Z80A-PIO	DIP-40	4MHz parallel I/O interf. contr. (MK3881-4)	1.49	1.29	1.15
35668CR	Z80A-SIO/O	DIP-40	4MHz serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.79	1.59
35705CR	Z80B	DIP-40	6MHz CPU (MK3880N-6)	2.59	2.39	2.09
280410CR	Z8018006PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	9.29	7.05	6.29
280428CR	Z8018006VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	9.29	7.05	6.29
280436CR	Z8018008PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	9.69	7.35	6.29
280444CR	Z8018008VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	6.39	5.85	4.99
280452CR	Z8018010PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	7.39	6.85	5.85
280461CR	Z8018010VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	11.29	8.55	7.35
280479CR	Z8S18020PSC	DIP-64	Z180 MPU, MMU, DMA, UART, INTC	14.50	12.50	10.75
280487CR	Z8S18020VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	12.95	9.79	8.05
280495CR	Z8S18033VSC	PLCC-68	Z180 MPU, MMU, DMA, UART, INTC	9.55	9.35	9.09
35781CR	Z84C00-4	DIP-40	4MHz CPU (Z84C0004PEC) CMOS	4.15	3.49	2.55
280508CR	Z84C0006VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	3.09	2.79	2.39
280516CR	Z84C0008PEC	DIP-40	Z80 CPU with 3 mode int., 16 regs.	3.25	2.99	2.59
280524CR	Z84C0008VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	\$6.65 3.39	2.89	2.59
280532CR	Z84C0010PEC	DIP-40	Z80 CPU with 3 mode int., 16 regs.	3.25	2.99	2.59
280541CR	Z84C0010VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	4.89	3.69	3.15
280559CR	Z84C0020VEC	PLCC-44	Z80 CPU with 3 mode int., 16 regs.	13.29	12.00	10.20
280567CR	Z84C4008PEC	DIP-40	Dual data ch. communication interface	7.25	6.65	5.69
280575CR	Z84C9010VSC	PLCC-84	Serial/parallel I/O counter/timer	17.00	14.50	12.60
35799CR	Z8530	DIP-40	2MHz serial communications controller	2.49	1.79	1.19
281308CR	Z85C3016PSC	DIP-40	Serial communications controller	13.79	10.45	8.37
61786CR	Z85C3008PSC	DIP-40	Serial communications controller	\$10.39 5.69	5.19	4.39
281316CR	Z85C3008VSC	PLCC-44	Serial communications controller	8.19	6.21	5.25
281324CR	Z8523016VSC	PLCC-44	Enhanced serial comm. controller	15.75	14.45	13.96

## 6500 Series/Commodore



Part No.	Cross Ref.	Pkg.	Description	1	10	100
43191CR	6502	DIP-40	MPU with internal clock 1MHz	\$7.95	\$6.95	\$6.25
43166CR	65C02	DIP-40	MPU with internal clock CMOS	6.95	5.25	3.65
43254CR	6522	DIP-40	VIA (versatile interface adapter) 1MHz	2.39	2.15	1.94
43297CR	6532	DIP-40	128 x 8 RAM, I/O timer array	7.95	6.99	6.49
43318CR	6551	DIP-28	ACIA (asynch. comm. interface adpdr)	3.95	3.49	3.15
291021CR	W65C816S89-14	DIP-40	16-bit MPU, 254-bit add. bus, 14MHz	11.59	9.99	8.59

## 6800/68000 Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
43481CR	6800	DIP-40	8-bit MCU	\$6.95	\$5.25	\$3.65
43502CR	6802	DIP-40	8-bit MPU with clock and RAM (1MHz)	8.50	7.65	6.89
43529CR	6803	DIP-40	8-bit MCU with 128k RAM	7.79	6.99	6.29
43537CR	MC6808	DIP-40	8-bit MPU with clock and 128k RAM	8.95	8.06	7.25
43545CR	6809E	DIP-40	MPU with external clock (1MHz)	3.95	3.59	3.25
43561CR	6810	DIP-24	128x8 static RAM (1MHz)	1.95	1.69	1.49
43596CR	6821	DIP-40	Peripheral interface adapter (1MHz)	3.95	3.59	3.25
43414CR	68B21	DIP-40	Peripheral interface adapter (2MHz)	4.95	4.49	4.05
43617CR	6840	DIP-28	Programmable timer (1MHz)	2.49	2.25	1.99
43633CR	6850	DIP-24	Asynch. comm. int. adapter (ACIA)	2.39	2.09	1.89
25304CR	MC68000L8	DIP-64	MPU 16-bit (8MHz)	8.95	7.95	7.25
25291CR	MC68000L10	DIP-64	MPU 16-bit (10MHz)	14.95	12.75	9.55
25355CR	MC68701	DIP-40	8-bit EPROM MPU w/ 128B RAM & I/O	15.95	13.95	12.55
25363CR	MC68705P3S	DIP-28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95	20.65
25371CR	MC68705U3S	DIP-40	8-bit EPROM MPU w/ 112B RAM & I/O	29.95	25.49	19.09
248591CR	MC68HC11E0CFN2	PLCC-52	MCU w/ 512 EPROM & 38 I/O, A/D	10.95	9.85	8.87



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 6800/68000 Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
248604CR	MC68HC11E1CFN3	PLCC-52	MCU w/ 512 EPROM & 38 I/O, A/D	\$8.85	\$7.25	\$6.55
191863CR	MC68HC11E1CP2	DIP-48	MCU w/ A/D converter (512B RAM)	15.95	13.55	10.15
248583CR	MC68HC11F1CFN3	PLCC-68	MCU w/ 512 EPROM & 30 I/O, A/D	9.99	7.59	7.15
248647CR	MC68HC705C8ACFN	PLCC-44	MCU, OTP 8k ROM, 31 I/O	7.39	5.45	4.99
108919CR	MC68HC705C8P	DIP-40	MCU, OTP 8k ROM, 24 I/O lines	7.29	6.29	5.80
132484CR	MC68HC705C8S	DIP-40	MCU, 8k bytes, EPROM	38.95	34.95	31.55
248639CR	MC68HC705J1ACDW	SOIC-20	MCU, OTP 1.2k ROM, 14 I/O	3.45	3.09	2.79
132530CR	MC68HC705J1ACP	DIP-20	MCU, OTP 1.0k ROM, 14 I/O	2.09	1.89	1.79
108927CR	MC68HC705K1P	DIP-16	MCU, OTP 504B ROM, 10 I/O timer	5.52	5.35	4.95
248612CR	MC68HC705P6ACP	DIP-28	MCU, OTP 4.5k ROM, 21 I/O A/D	3.95	2.75	2.49
248621CR	MC68HC705P6ADW	SOIC-28	MCU, OTP 4.5k ROM, 21 I/O A/D	3.95	2.75	2.49
248655CR	MC68HC705C9ACFN	PLCC-44	MCU, OTP 16k ROM, 31 I/O	11.75	10.55	9.50
248567CR	MC68HC71D3CFN2	PLCC-44	MCU, OTP 4k ROM, 26 I/O	10.75	9.69	8.71
285675CR	MC68HC705BDT	DIP-40	MCU, OTP 11k ROM, 26 I/O A/D	9.99	8.99	7.99
248575CR	MC68HC71E9CFN2	PLCC-52	MCU, OTP 12k ROM, 38 I/O A/D	13.59	10.49	9.89
248356CR	MC68HC908GP32CP	DIP-40	MCU, flash 32k ROM, 33 I/O	12.69	11.39	10.29
248410CR	MC68HC908JB8ADW	SOIC-28	MCU, flash 8k ROM, 21 I/O USB	6.69	5.99	5.45
248401CR	MC68HC908JB8JP	DIP-20	MCU, flash 8k ROM, 37 I/O USB	5.49	5.45	4.65
248372CR	MC68HC908JK3CDW	SOIC-20	MCU, flash 4k ROM, 15 I/O	3.75	3.45	3.09
248364CR	MC68HC908JK3CP	DIP-20	MCU, flash 4k ROM, 15 I/O	3.75	3.45	3.09
248399CR	MC68HC908JL3CDW	SOIC-28	MCU, flash 4k ROM, 23 I/O, A/D	5.45	4.95	4.45
248381CR	MC68HC908JL3CP	DIP-28	MCU, flash 4k ROM, 23 I/O, A/D	4.55	4.35	3.95
248436CR	MC68HC908KX8CDW	SOIC-16	MCU, flash 8k ROM, 13 I/O, A/D	6.29	5.69	5.15
248428CR	MC68HC908KX8CP	DIP-16	MCU, flash 8k ROM, 13 I/O, A/D	5.65	5.45	5.05
248495CR	MC68HC908QT1CDW	SOIC-8	MCU, flash 1.5k ROM, 6 I/O	1.89	1.45	1.30
248487CR	MC68HC908QT1CP	DIP-8	MCU, flash 1.5k ROM, 6 I/O	1.89	1.45	1.30
248479CR	MC68HC908QT2CDW	SOIC-8	MCU, flash 1.5k ROM, 6 I/O, A/D	2.39	2.29	2.09
248461CR	MC68HC908QT2CP	DIP-8	MCU, flash 1.5k ROM, 6 I/O, A/D	2.85	2.55	2.29
248452CR	MC68HC908QT4CDW	SOIC-8	MCU, flash 4k ROM, 6 I/O, A/D	2.69	2.05	1.85
248444CR	MC68HC908QT4CP	DIP-8	MCU, flash 4k ROM, 6 I/O, A/D	2.69	1.65	1.43
248559CR	MC68HC908QY1CDT	TSSOP-16	MCU, flash 1.5k ROM, 14 I/O	2.49	2.39	2.19
248541CR	MC68HC908QY1CP	DIP-16	MCU, flash 1.5k ROM, 14 I/O	2.15	1.65	1.49
248532CR	MC68HC908QY2CDT	TSSOP-16	MCU, flash 1.5k ROM, 13 I/O, A/D	2.85	2.69	2.45
248524CR	MC68HC908QY2CP	DIP-16	MCU, flash 1.5k ROM, 13 I/O, A/D	2.55	1.95	1.75
248516CR	MC68HC908QY4CDW	TSSOP-16	MCU, flash 4k ROM, 13 I/O A/D	2.89	2.49	2.25
248508CR	MC68HC908QY4CP	DIP-16	MCU, flash 4k ROM, 13 I/O A/D	2.89	2.49	2.25

## 8000 Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
51844CR	8031	DIP-40	CPU with 128 x 8 RAM and I/O	\$3.29	\$2.99	\$2.69
51676CR	80C31	DIP-40	CPU with 128 x 8 RAM and I/O CMOS	3.39	2.89	2.19
102197CR	8032	DIP-40	8-bit MCU 256 x 8 RAM	3.95	3.59	3.25
108804CR	80C32-1	DIP-40	8-bit MCU 256 x 8 RAM CMOS	4.49	3.85	2.89
51861CR	8035	DIP-40	MPU 8-bit	3.95	3.59	3.25
51959CR	8039	DIP-40	CPU single chip 8-bit (128 bytes RAM)	4.49	3.99	3.59
51692CR	80C39	DIP-40	CPU sgle chip 8-bit (128 bytes RAM) CMOS	3.99	3.59	3.25
51983CR	8049*	DIP-40	CPU sgle chip 8-bit (can be used as 8039*)	1.95	1.75	1.59
51991CR	8051AP**	DIP-40	MCU w/128x8 RAM	5.49	4.99	4.49
52003CR	8052AH**	DIP-40	CPU 8-bit 256 bytes RAM, tmr/countr & I/O	7.99	7.19	6.49
125647CR	80C52BASIC	DIP-40	CPU 8-bit CMOS w/ basic interpreter	32.09	28.89	25.99
52046CR	8080A	DIP-40	CPU 8-bit N-channel (1MHz)	4.49	3.95	3.59
52062CR	8085AH	DIP-40	CPU 8-bit HMOS (3MHz)	4.99	4.25	3.19
52071CR	8085AH-2	DIP-40	CPU 8-bit HMOS (5MHz)	5.49	4.99	4.49
51705CR	80C85	DIP-40	CPU 8-bit CMOS (3MHz)	6.95	5.95	4.45
52100CR	8086-2	DIP-40	CPU 16-bit (8MHz)	1.95	1.75	1.59
52142CR	8088	DIP-40	CPU 16-bit (8-bit data bus) 5MHz	2.49	2.25	1.99
52169CR	8088-2	DIP-40	CPU 16-bit (8-bit data bus) 8MHz	5.95	5.39	4.85
34358CR	UPD70108-8	DIP-40	V20 chip (replaces the 8088-2) 8MHz	10.99	9.99	8.99
52290CR	8155	DIP-40	HMOS RAM I/O port/timer (3MHz)	4.49	3.39	2.39
52302CR	8155-2	DIP-40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39	4.85
52193CR	81C55	DIP-40	256x8 RAM I/O port/tmr CMOS 3MHz	4.49	3.59	3.19
52329CR	8156	DIP-40	RAM with I/O port and timer	6.99	6.29	5.69
52468CR	8212	DIP-24	8-bit input/output (74S412)	6.49	5.99	5.49
52484CR	8216	DIP-16	Bi-directional bus driver (non-invert.)	3.95	3.39	2.55

\* 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039

\*\* Tie pin 31 low to bypass the internal ROM

## 8000 Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
52492CR	8224	DIP-16	Clock generator/driver	\$2.95	\$2.49	\$2.25
52513CR	8228	DIP-28	System contr./bus driver (74S428)	3.69	3.19	2.36
52581CR	8243	DIP-24	I/O expander for 48 series	5.49	4.99	4.49
52610CR	8250A	DIP-40	Asynchronous comm. element	4.95	4.25	3.19
52644CR	8251	DIP-28	Prog. comm. I/O (USART)	2.99	2.69	2.39
52652CR	8251A	DIP-28	Prog. comm. interface (USART)	3.99	3.69	3.39
52370CR	82C51A	DIP-28	Prog. comm. interface (USART) CMOS	4.49	3.99	3.49
52679CR	8253	DIP-24	Prog. interval timer	3.19	2.89	2.59
52687CR	8253-5	DIP-24	Prog. interval timer (2MHz)	4.99	4.49	3.99
52388CR	82C53-5	DIP-24	Prog. interval timer CMOS 2MHz	4.95	4.25	3.19
52708CR	8254	DIP-24	Prog. interval timer (UPD71054)	4.49	3.99	3.59
52716CR	8254-2	DIP-24	Prog. interval timer (10MHz)	7.35	6.65	5.95
52396CR	82C54	DIP-24	Prog. interval timer CMOS	3.95	3.39	2.55
52409CR	82C54-2	DIP-24	Prog. interval timer CMOS 10MHz	4.49	3.85	2.89
52724CR	8255	DIP-40	Prog. periph. I/O (PPI) 71055 (2MHz)	4.49	3.99	3.49
52732CR	8255A-5	DIP-40	Prog. peripheral I/O (PPI) 5MHz	4.89	4.39	2.89
291805CR	8255AC-5	DIP-40	MPU peripheral I/O (PPI)	4.89	4.39	2.89
52417CR	82C55A	DIP-40	Prog. peripheral I/O (PPI) CMOS	4.99	4.49	3.99
52425CR	82C55A-5	DIP-40	Prog. periph. I/O (PPI) CMOS (5MHz)	4.49	3.99	3.49
52759CR	8256	DIP-40	Multif. universal asynch. rec./trans.	19.99	17.99	16.19
52775CR	8259	DIP-28	Prog. interrupt controller (UPD71059)	1.75	1.55	1.45
52783CR	8259-5	DIP-28	Prog. interrupt controller (8259A-2)	2.49	2.19	1.99
52821CR	8275	DIP-40	Prog. CRT controller	12.95	10.99	8.25
52839CR	8279	DIP-40	Prog. keyboard/display interface	12.99	11.99	10.99
52847CR	8279-5	DIP-40	Prog. keybrd/display interface (5MHz)	12.95	11.69	10.49
52855CR	8282	DIP-20	Octal latch (UPD71082)	6.49	4.89	3.45
52871CR	8284A	DIP-18	Clock gen. and driver (UPD71084)	4.49	3.99	3.59
52898CR	8286	DIP-20	Octal bus transceiver (UPD71086)	3.95	3.59	3.25
52901CR	8287	DIP-20	Octal bus transceiver (inverted)	10.99	9.99	8.99
52919CR	8288	DIP-20	Bus controller (UPD71088) 82C88-2	1.95	1.65	1.25
53006CR	8741	DIP-40	8-bit univ. periph. interface (EPROM)	7.99	7.19	6.49
53014CR	8742	DIP-40	8-bit univ. peripheral interface	9.95	8.49	6.35
53022CR	8748	DIP-40	CPU 8-bit, EPROM, RAM & I/O (21V)	13.95	11.89	8.89
53031CR	8748H	DIP-40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V)	15.95	14.49	12.99
53057CR	8749H	DIP-40	MPU 8-bit (EPROM version 8049)	22.99	19.49	15.95
53073CR	8751	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-8MHz)	19.99	17.99	16.19
53081CR	8751H	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (1.2-12MHz)	28.49	20.25	14.99
52978CR	87C51	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz)	21.99	18.69	13.99
196120CR	P87C51	DIP-40	CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz) OTP	8.99	8.09	7.29
53090CR	8755	DIP-40	16k EPROM with I/O	8.95	8.09	7.29
248701CR	T89C51RB2	PLCC-44	MCU, flash 16k ROM, 32 I/O	8.65	7.79	7.05
248719CR	T89C51RC2	PLCC-44	MCU, flash 32k ROM, 32 I/O	10.25	9.19	8.29
248727CR	T89C51RD2	PLCC-44	MCU, flash 64k ROM, 32 I/O	13.45	12.15	10.89



## PIC Microcontrollers



Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
145040CR	PIC12C508A-04/P	DIP-8	OTP	4	512	25	5	\$1.49	\$9.99
145058CR	PIC12C509A/JW	DIP-8	EPROM	4	1k	41	5	13.95	12.59
144258CR	PIC12C509A-04/P	DIP-8	OTP	4	1k	41	5	1.49	1.09
200475CR	PIC12CE518-04/P	DIP-8	OTP	4	512	25	6	1.79	1.55
200483CR	PIC12CE519-04/P	DIP-8	OTP	4	1k	41	6	1.97	1.69
193455CR	PIC12C671-04/P	DIP-8	OTP	4	1k	128	6	2.79	2.29
193463CR	PIC12C672-04/P	DIP-8	OTP	4	2k	128	6	2.79	2.19
248137CR	PIC12CE673-10/P	DIP-8	OTP	10	1k	128	5	3.41	3.19
248145CR	PIC12CE674-10/P	DIP-8	OTP	10	2k	128	5	3.41	2.89
223790CR	PIC12F629-I/P	DIP-8	Flash	20	1k	64	6	1.59	1.39
247193CR	PIC12F629-I/SN	SOIC-8	Flash	20	1k	64	6	1.59	1.29
223781CR	PIC12F675-I/P	DIP-8	Flash	20	1k	64	6	1.99	1.69
247206CR	PIC12F675-I/SN	SOIC-8	Flash	20	1k	64	6	1.99	1.29
247361CR	PIC14000-4/SP	DIP-28	OTP	4	4k	192	22	9.74	9.47
247370CR	PIC14000-4/SO	SOIC-28	OTP	4	4k	192	22	9.93	9.66
200459CR	PIC16C505-04/P	DIP-14	OTP	20	1k	72	12	1.99	1.29
247329CR	PIC16C505-20/P	DIP-14	OTP	20	1k	72	11	2.00	1.69
247337CR	PIC16C505-20/SL	SOIC-14	OTP	20	1k	72	11	1.99	1.69
128338CR	PIC16C54A-04/P	DIP-18	OTP	4	512	25	12	3.59	2.59
247214CR	PIC16C54C-20/P	DIP-18	OTP	20	512	25	12	2.33	2.00

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
247222CR	PIC16C54C-20I/SS	SOIC-18	OTP	20	512	25	12 .....	\$2.33	\$1.91
247231CR	PIC16C54C-20I/SS	SSOP-20	OTP	20	512	25	12 .....	2.57	2.18
247345CR	PIC16HV540-20/P	DIP-18	OTP	20	512	25	12 .....	2.30	1.95
247353CR	PIC16HV540-20/SS	SSOP-20	OTP	20	512	25	12 .....	2.35	2.00
200416CR	PIC16C55A-04/P	DIP-28	OTP	4	512	24	20 .....	2.69	2.19
247249CR	PIC16C55A-20I/P	DIP-28	OTP	20	512	24	20 .....	2.96	2.61
247257CR	PIC16C55A-20I/SS	SOIC-28	OTP	20	512	24	20 .....	3.08	2.61
247388CR	PIC16C55A-4/P	DIP-18	OTP	4	512	80	13 .....	3.51	2.96
247396CR	PIC16C55A-4/SS	SOIC-18	OTP	4	512	80	13 .....	3.57	3.34
247409CR	PIC16C558-20/P	DIP-18	OTP	20	2k	128	13 .....	4.59	3.87
247417CR	PIC16C558-20/SS	SOIC-18	OTP	20	2k	128	13 .....	4.68	4.31
134172CR	PIC16C56-RC/P	DIP-18	OTP	20	1k	25	12 .....	4.49	3.69
247265CR	PIC16C56A-20I/P	DIP-18	OTP	20	1k	25	12 .....	2.87	2.44
247273CR	PIC16C56A-20I/SS	SOIC-18	OTP	20	1k	25	12 .....	2.66	2.56
213495CR	PIC16C57C/JW	DIP-28	EPROM	40	2k	72	20 .....	13.95	12.95
193341CR	PIC16C57C-04/P	DIP-28	OTP	4	2k	72	20 .....	3.19	2.09
247281CR	PIC16C57C-20/P	DIP-28	OTP	20	2k	72	20 .....	3.46	2.75
247290CR	PIC16C57C-20/SS	SOIC-28	OTP	20	2k	72	20 .....	3.60	3.06
247302CR	PIC16C58B-20/P	DIP-18	OTP	20	2k	73	12 .....	2.77	2.22
247311CR	PIC16C58B-20/SS	SOIC-18	OTP	20	2k	73	12 .....	2.82	2.41
247433CR	PIC16C62B-20/SS	SOIC-28	OTP	20	2k	128	22 .....	4.42	3.75
247425CR	PIC16C62B-20/SP	DIP-28	OTP	20	2k	128	22 .....	4.42	3.75
247505CR	PIC16C620A-20I/P	DIP-18	OTP	20	512	96	13 .....	2.26	1.92
247513CR	PIC16C620A-20I/SS	SOIC-18	OTP	20	512	96	13 .....	2.30	1.95
247521CR	PIC16C621A-20I/P	DIP-18	OTP	20	1k	96	13 .....	2.54	2.15
247530CR	PIC16C621A-20I/SS	SOIC-18	OTP	20	1k	96	13 .....	2.59	2.19
193383CR	PIC16C62A-04/P	DIP-18	OTP	4	2k	128	13 .....	2.69	2.29
247548CR	PIC16C622A-20I/P	DIP-18	OTP	20	2k	128	13 .....	3.15	2.69
247556CR	PIC16C622A-20I/SS	SOIC-18	OTP	20	2k	128	13 .....	3.20	2.72
193439CR	PIC16F627-20/P	DIP-18	Flash	20	1k	224	16 .....	3.29	2.55
193447CR	PIC16F628-20/P	DIP-18	Flash	20	2k	224	16 .....	3.69	2.69
246730CR	PIC16F628-20/SS	SOIC-18	Flash	20	2k	224	16 .....	3.71	2.73
246748CR	PIC16F628-20/SS	SSOP-20	Flash	20	2k	224	16 .....	4.02	2.97
246756CR	PIC16F628-20I/P	DIP-18	Flash	20	2k	224	16 .....	4.02	2.97
246764CR	PIC16F628-20I/SS	SOIC-18	Flash	20	2k	224	16 .....	4.09	3.02
193324CR	PIC16C63A-20/SP	DIP-28	OTP	20	4k	192	22 .....	5.49	4.49
223749CR	PIC16F630-I/P	DIP-14	Flash	20	1k	64	12 .....	1.89	1.59
247126CR	PIC16F630-I/SL	SOIC-14	Flash	20	1k	128	12 .....	1.86	1.58
247134CR	PIC16F630-I/ST	TSSOP-14	Flash	20	1k	128	12 .....	2.07	1.77
247142CR	PIC16F648A-I/P	DIP-18	Flash	20	4k	256	16 .....	3.27	1.92
247151CR	PIC16F648A-I/SS	SOIC-18	Flash	20	4k	256	16 .....	3.34	2.46
247169CR	PIC16F648A-I/SS	SSOP-20	Flash	20	4k	256	16 .....	3.59	2.66
247450CR	PIC16C65B-20I/L	PLCC-44	OTP	20	4k	192	33 .....	7.60	7.49
247441CR	PIC16C65B-20I/P	DIP-40	OTP	20	4k	192	33 .....	6.79	5.69
200424CR	PIC16C66-04/SP	DIP-18	OTP	4	8k	368	22 .....	5.43	4.82
247476CR	PIC16C66-20I/SS	SOIC-28	OTP	20	8k	368	22 .....	8.68	7.39
247468CR	PIC16C66-20I/SP	DIP-28	OTP	20	8k	368	22 .....	8.68	7.39
247492CR	PIC16C67-20/L	PLCC-44	OTP	20	8k	368	33 .....	9.10	8.55
247484CR	PIC16C67-20/P	DIP-40	OTP	20	8k	368	33 .....	8.68	7.31
223757CR	PIC16F676-I/P	DIP-14	Flash	20	1k	64	12 .....	2.19	1.79
247177CR	PIC16F676-I/SL	SOIC-14	Flash	20	1k	64	12 .....	2.14	1.81
247185CR	PIC16F676-I/ST	TSSOP-14	Flash	20	1k	64	12 .....	2.35	2.00
247581CR	PIC16C710-20/P	DIP-18	OTP	20	512	36	13 .....	3.88	2.86
193359CR	PIC16C711-04/P	DIP-18	OTP	4	1k	68	13 .....	3.99	2.29
247599CR	PIC16C711-20/P	DIP-18	OTP	20	1k	68	13 .....	4.65	3.42
247601CR	PIC16C711-20/SS	SOIC-18	OTP	20	1k	68	13 .....	4.75	3.49
247610CR	PIC16C712-20/P	DIP-18	OTP	20	1k	128	13 .....	3.41	2.51
247628CR	PIC16C712-20/SS	SOIC-18	OTP	20	1k	128	13 .....	3.48	2.57
247636CR	PIC16C715-20/P	DIP-18	OTP	20	2k	68	13 .....	4.75	3.49
247644CR	PIC16C715-20/SS	SOIC-18	OTP	20	2k	68	13 .....	4.84	4.00
247652CR	PIC16C716-20I/P	DIP-18	OTP	20	2k	128	13 .....	4.18	3.09
247661CR	PIC16C716-20I/SS	SOIC-18	OTP	20	2k	128	13 .....	4.62	3.14
247679CR	PIC16C717-I/P	DIP-20	OTP	20	2k	256	16 .....	6.72	3.04
247687CR	PIC16C717-SS	SOIC-20	OTP	20	2k	256	16 .....	3.74	2.75
200432CR	PIC16C72A-04/SP	DIP-28	OTP	4	2k	128	22 .....	4.99	4.39
247695CR	PIC16C72A-20I/P	DIP-28	OTP	20	2k	128	22 .....	5.78	4.92
247708CR	PIC16C72A-20I/SS	SOIC-28	OTP	20	2k	128	22 .....	5.26	4.92

## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
193391CR	PIC16F73-I/SP	DIP-28	Flash	20	4k	192	5 .....	\$5.19	\$4.19
246801CR	PIC16F73-I/SS	SOIC-28	Flash	20	4k	192	22 .....	5.06	4.30
246810CR	PIC16F73-I/SS	SSOP-28	Flash	20	4k	192	22 .....	5.20	4.41
200441CR	PIC16C73A-04/SP	DIP-40	OTP	4	4k	192	22 .....	8.65	7.79
145091CR	PIC16C74A/JW	DIP-40	EPROM	20	14k	192	33 .....	19.95	17.99
246772CR	PIC16F74-I/L	PLCC-44	Flash	20	4k	192	33 .....	6.86	6.12
193404CR	PIC16F74-I/P	DIP-40	Flash	20	4k	192	8 .....	6.19	5.19
246781CR	PIC16F74-I/P	TQFP-44	Flash	20	4k	192	33 .....	7.36	6.26
247804CR	PIC16C745-I/SS	SOIC-28	OTP	24	8k	256	22 .....	5.10	3.79
247791CR	PIC16C745-I/SP	DIP-28	OTP	24	8k	256	22 .....	5.10	3.79
246828CR	PIC16F76-I/SS	SOIC-28	Flash	20	8k	368	22 .....	6.34	5.39
193412CR	PIC16F76-I/SP	DIP-28	Flash	20	8k	368	5 .....	6.49	5.39
246836CR	PIC16F76-I/SS	SSOP-28	Flash	20	8k	368	22 .....	6.49	5.52
247821CR	PIC16C765-I/L	PLCC-44	OTP	24	8k	256	33 .....	6.39	5.42
247812CR	PIC16C765-I/P	DIP-40	OTP	24	8k	256	33 .....	6.09	4.49
246799CR	PIC16F77-I/L	PLCC-44	Flash	20	8k	368	33 .....	7.85	6.99
193421CR	PIC16F77-I/P	DIP-40	Flash	20	8k	368	8 .....	7.09	5.89
247716CR	PIC16C770-I/P	DIP-20	OTP	20	2k	256	16 .....	4.07	2.99
247724CR	PIC16C770-SS	SOIC-20	OTP	20	2k	256	16 .....	3.69	2.72
247732CR	PIC16C771-I/P	DIP-20	OTP	20	2k	256	16 .....	4.42	3.29
247741CR	PIC16C771-I/SS	SOIC-20	OTP	20	2k	256	16 .....	4.48	3.31
247759CR	PIC16C773-I/SP	DIP-28	OTP	20	4k	256	22 .....	6.98	5.93
247767CR	PIC16C773-I/SS	SOIC-28	OTP	20	4k	256	22 .....	6.98	5.93
247783CR	PIC16C774-I/L	PLCC-44	OTP	20	4k	256	33 .....	9.05	8.52
247775CR	PIC16C774-I/P	DIP-40	OTP	20	4k	256	33 .....	8.49	7.21
223765CR	PIC16F818-I/P	DIP-18	Flash	20	1k	128	16 .....	3.09	2.29
247054CR	PIC16F818-I/SS	SOIC-18	Flash	20	1k	128	16 .....	3.10	2.28
247062CR	PIC16F818-I/SS	SSOP-20	Flash	20	1k	128	16 .....	3.37	2.39
223773CR	PIC16F819-I/P	DIP-18	Flash	20	2k	256	16 .....	3.59	2.59
247089CR	PIC16F819-I/SS	SOIC-18	Flash	20	2k	256	16 .....	3.53	2.60
247071CR	PIC16F819-I/SS	SSOP-20	Flash	20	2k	256	16 .....	3.81	2.81
145111CR	PIC16F84-04/P	DIP-18	Flash	4	1k	68	13 .....	6.59	4.39
145120CR	PIC16F84-10/P	DIP-18	Flash	10	1k	68	13 .....	7.09	5.99
193332CR	PIC16F84A-20/P	DIP-18	Flash	20	1k	68	13 .....	5.79	4.69
246844CR	PIC16F84A-20/SS	SOIC-18	Flash	20	1k	68	13 .....	5.73	4.87
246852CR	PIC16F84A-20/SS	SSOP-20	Flash	20	1k	68	13 .....	6.11	5.19
246861CR	PIC16F84A-20I/P	DIP-18	Flash	20	1k	68	13 .....	6.20	5.24
246879CR	PIC16F84A-20I/SS	SOIC-18	Flash	20	1k	68	13 .....	6.30	5.35
246887CR	PIC16F84A-20I/SS	SSOP-20	Flash	20	1k	68	13 .....	6.66	5.65
247097CR	PIC16F87-I/P	DIP-18	Flash	20	4k	368	16 .....	4.02	2.97
247100CR	PIC16F87-I/SS	SOIC-18	Flash	20	4k	368	16 .....	4.12	3.04
247118CR	PIC16F87-I/SS	SSOP-20	Flash	20	4k	368	16 .....	4.42	3.26
246908CR	PIC16F870-I/SS	SOIC-28	Flash	20	2k	128	22 .....	4.35	3.69
246895CR	PIC16F870-I/SP	DIP-28	Flash	20	2k	128	22 .....	4.35	3.69

## Programming & Customizing PICmicro Microcontrollers

### Second Edition

**McGraw-Hill** Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. (1190 pages, 2001)

Includes: CD-ROM and PIC PCB

Part No.	Description	Size	Wt. (lbs.)	Price
183046CR	PICmicro Programming	9.2" x 7.3"	4.0 .....	\$49.95

## Time'n and Count'n

### Intermediate Level PIC Applications

**Square 1 Publishing** This book previously appeared in PIC'n Techniques book. The more current PIC16F870 is substituted for the PIC16C63. Topics such as test equipment for timing & counting experiments to using timer 1 & 2, and capture/compare/PWM as well as programs are included in this book. (218 pages, 2002)

• Size: 8.5" x 11.0"

• Weight: 1.4 lbs.

Part No.	Description	Price
210489CR	Time'n and Count'n .....	\$34.95



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## MICROCHIP PIC Microcontrollers

Part No.	Product No.	Pkg.	Memory	Speed (MHz)	ROM Words	RAM Bytes	I/O Pins	1	25
246916CR	PIC16F870-I/SS	SSOP-28	Flash	20	2k	128	22	..... \$4.49	\$3.81
246932CR	PIC16F871-I/L	PLCC-44	Flash	20	2k	128	33	..... 5.76	5.40
246924CR	PIC16F871-I/P	DIP-40	Flash	20	2k	128	33	..... 5.15	4.65
246959CR	PIC16F872-I/SO	SOIC-28	Flash	20	2k	128	22	..... 4.35	3.69
246941CR	PIC16F872-I/SP	DIP-28	Flash	20	2k	128	22	..... 4.35	3.69
246967CR	PIC16F872-I/SS	SSOP-28	Flash	20	2k	128	22	..... 4.49	3.81
246983CR	PIC16F873A-I/SO	SOIC-28	Flash	20	4k	192	22	..... 6.16	5.22
246975CR	PIC16F873A-I/SP	DIP-28	Flash	20	4k	192	22	..... 6.29	5.19
247003CR	PIC16F874A-I/L	PLCC-44	Flash	20	4k	192	33	..... 7.55	6.73
246991CR	PIC16F874A-I/P	DIP-40	Flash	20	4k	192	33	..... 6.72	5.72
247020CR	PIC16F876A-I/SO	SOIC-28	Flash	20	8k	368	22	..... 6.63	5.64
247011CR	PIC16F876A-I/SP	DIP-28	Flash	20	8k	368	22	..... 6.63	5.64
193367CR	PIC16F876-20/SP	DIP-28	Flash	20	256	368	22	..... 7.89	6.69
247046CR	PIC16F877A-I/L	PLCC-44	Flash	20	8k	368	33	..... 8.11	7.24
247038CR	PIC16F877A-I/P	DIP-40	Flash	20	8k	368	33	..... 7.24	6.15
176882CR	PIC16F877-20/P	DIP-40	Flash	20	256	368	33	..... 9.49	8.49
247847CR	PIC16C923-04I/L	PLCC-68	OTP	4	4k	176	52	..... 6.29	6.11
247880CR	PIC17C42A-16/L	PLCC-44	OTP	16	2k	232	33	..... 10.39	9.64
247871CR	PIC17C42A-16/P	DIP-40	OTP	16	2k	232	33	..... 9.39	8.29
247901CR	PIC17C43-25/L	PLCC-44	OTP	25	4k	454	33	..... 12.31	11.55
247898CR	PIC17C43-25/P	DIP-40	OTP	25	4k	454	33	..... 11.90	10.00
247927CR	PIC17C44-33/L	PLCC-44	OTP	33	8k	454	33	..... 15.39	13.59
247919CR	PIC17C44-33/P	DIP-40	OTP	33	8k	454	33	..... 14.75	12.40
247935CR	PIC17C752-33/L	PLCC-68	OTP	33	8k	678	50	..... 13.95	12.95
247943CR	PIC17C756A-33I/L	PLCC-68	OTP	33	16k	902	50	..... 16.05	14.89
247951CR	PIC17C762-16/L	PLCC-84	OTP	33	8k	678	66	..... 15.94	14.80
247960CR	PIC17C766-33I/L	PLCC-84	OTP	33	16k	902	66	..... 19.25	17.89
248090CR	PIC18F1220-I/P	DIP-18	Flash	40	2k	256	16	..... 4.35	3.89
248102CR	PIC18F1220-I/SO	SOIC-18	Flash	40	2k	256	16	..... 4.35	3.89
248111CR	PIC18F1320-I/P	DIP-18	Flash	40	4k	256	16	..... 4.89	4.40
248129CR	PIC18F1320-I/SO	SOIC-18	Flash	40	4k	256	16	..... 4.89	4.40
247986CR	PIC18F242-I/SO	SOIC-28	Flash	40	8k	768	23	..... 7.39	6.61
247978CR	PIC18F242-I/SP	DIP-28	Flash	40	8k	768	23	..... 7.39	6.61
248006CR	PIC18F252-I/SO	SOIC-28	Flash	40	16k	1536	23	..... 8.05	7.20
247994CR	PIC18F252-I/SP	DIP-28	Flash	40	16k	1536	23	..... 8.05	7.20
200504CR	PIC18C252-I/SP	DIP-28	OTP	40	32k	1536	23	..... 7.75	6.95
248022CR	PIC18F258-I/SO	SOIC-28	Flash	40	16k	1536	23	..... 9.65	8.62
248014CR	PIC18F258-I/SP	DIP-28	Flash	40	16k	1536	23	..... 9.65	8.62
248081CR	PIC18F442-I/L	PLCC-44	Flash	40	8k	768	34	..... 9.59	8.63
248073CR	PIC18F442-I/P	DIP-40	Flash	40	8k	768	34	..... 8.15	7.35
200512CR	PIC18C452-I/P	DIP-40	OTP	40	32k	1536	23	..... 9.19	7.49
200521CR	PIC18C452/JW	DIP-40	EPROM	40	32k	1536	23	..... 22.85	20.55
248049CR	PIC18F452-I/L	PLCC-44	Flash	40	16k	1536	34	..... 10.29	9.26
248031CR	PIC18F452-I/P	DIP-40	Flash	40	16k	1536	34	..... 8.85	7.99
248065CR	PIC18F458-I/L	PLCC-44	Flash	40	16k	1536	34	..... 11.15	10.05
248057CR	PIC18F458-I/P	DIP-40	Flash	40	16k	1536	34	..... 9.79	8.75

## TEXAS INSTRUMENTS Microcontrollers

Part No.	Product No.	Pkg.	Description	1	10	100
248663CR	MSP430F1121AIPW	SSOP-20	MCU, flash 8MHz 4k ROM, 15 I/O	..... \$3.55	\$3.45	\$3.09
248680CR	MSP430F1231PW	SSOP-28	MCU, flash 8MHz 4k ROM, 15 I/O	..... 4.79	4.69	4.25

## Serial Communications

### Serial Communications PIC Applications

**Square 1 Publishing** Topics such as asynchronous serial communications, RS242 standard, ASCII character code, bit-bang asynchronous communications and synchronous serial communications to name a few are covered in this book as well as tool box modules and applications. (566 pages, 2002)

• Size: 8.6" x 11.0" • Weight: 3.5 lbs.

Part No.	Description	Price
210497CR	Serial Communications	\$49.95

## Microcontrol'n Apps

### PIC Microcontroller Applications (Version 2)

**Square 1 Publishing** This book is a revision of and the successor to PIC'n Up The Pace. Materials covered in the book include talking to a PIC microcontroller with a PC running a terminal, simple data logger and digital voltmeter experiment, PIC16F87x and 10-bit A/D conversion. (437 pgs, 2002)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.

Part No.	Description	Price
215052CR	Microcontrol'n Apps	\$44.95

## ATMEL Microcontrollers

Part No.	Product No.	Pkg.	Description	1	25
248330CR	ATMEGA8-16PI	DIP-28	8-bit MCU, 16MHz 8kB flash	\$5.25	\$4.41
248153CR	ATTINY11-6PC	DIP-8	8-bit MCU, 6MHz 1kB flash	1.66	1.41
248161CR	ATTINY11-6SI	SOIC-8	8-bit MCU, 6MHz 1kB flash	1.79	1.51
248170CR	ATTINY12-8PC	DIP-8	8-bit MCU, 8MHz 1kB flash	1.85	1.59
248188CR	ATTINY12-8SI	SOIC-8	8-bit MCU, 8MHz 1kB flash	1.99	1.69
248196CR	ATTINY15L-1PC	DIP-8	8-bit MCU, 1.6MHz 1kB flash	2.99	2.53
248209CR	ATTINY15L-1SI	SOIC-8	8-bit MCU, 1.6MHz 1kB flash	2.99	2.53
248217CR	ATTINY26-16PC	DIP-20	8-bit MCU, 16MHz 2kB flash	2.49	2.11
248225CR	ATTINY26-16SI	SOIC-20	8-bit MCU, 16MHz 2kB flash	2.58	2.25
248233CR	ATTINY28L-4PC	DIP-28	8-bit MCU, 4MHz 2kB flash	2.25	1.88
248348CR	ATMEGA8515-16JI	PLCC-44	8-bit MCU, 16MHz 8kB flash	5.19	4.52
168866CR	AT89C1051-24PC	DIP-20	8-bit MCU, 24MHz 1kB flash mem.	2.65	2.15
168874CR	AT89C2051-24PC	DIP-20	8-bit MCU, 24MHz 2kB flash mem.	3.59	2.39
265332CR	AT89C2051-12PC	DIP-20	8-bit MCU, 12MHz 2kB flash mem.	3.29	2.85
204089CR	AT89C4051-24PC	DIP-20	8-bit MCU, 24MHz 4kB flash mem. 8-bit	4.49	2.95
168911CR	AT89C51-24JC	PLCC-44	8-bit MCU w/ 4kB flash	1.89	1.79
168903CR	AT89C51-24PC	DIP-40	8-bit MCU, 24MHz 4kB flash memory	4.49	3.99
168920CR	AT89C52-24PC	DIP-40	8-bit MCU, 24MHz 8kB flash memory	4.39	2.85
220871CR	AT89S52-24JI	PLCC-44	8-bit MCU, 8kB programmable flash	3.09	2.29
168946CR	AT89C55WD-24PC	DIP-40	8-bit MCU, 24MHz 20kB flash memory	7.99	7.19
204097CR	AT89S8252-24PC	DIP-40	8-bit MCU, 24MHz 8kB flash mem. 2kB EEPROM	6.75	4.49
204100CR	AT90S1200-12PC	DIP-20	20 AVR 8-bit RISC MCU, 12MHz 1kB prog. flash	2.95	1.95
248241CR	AT90S1200A-12SC	SOIC-20	8-bit AVR MCU, 12MHz 1kB prog. flash	2.89	2.45
248250CR	AT90S2313-10PC	DIP-20	8-bit AVR MCU, 10MHz 2kB prog. flash	3.25	2.69
248268CR	AT90S2313-10SI	SOIC-20	8-bit AVR MCU, 10MHz 2kB prog. flash	2.65	2.39
204118CR	AT90S2323-10PC	DIP-8	8-bit AVR MCU, 10MHz 2kB prog. flash	2.63	2.29
248276CR	AT90S2323-10SI	SOIC-8	8-bit AVR MCU, 10MHz 2kB prog. flash	3.25	2.79
248284CR	AT90S2343-10PC	DIP-8	8-bit AVR MCU, 10MHz 2kB prog. flash	2.99	2.63
248292CR	AT90S2343-10SI	SOIC-8	8-bit AVR MCU, 10MHz 2kB prog. flash	3.49	2.74
204126CR	AT90S8515-8PC	DIP-40	8-bit AVR MCU, 8MHz 8kB prog. flash	7.95	5.49

## PIC BASIC Programming and Projects

**Newnes Publications** The BASIC language, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001)

Part No.	Description	Size	Weight	1	10
200168CR	PIC BASIC Programming	6.1" x 9.2	0.8 lbs.	\$34.95	\$32.95

## Easy Microcontrol'n

### Beginners Guide (Version 4)

**Square 1 Publishing** A revision of and successor to Easy PIC'n that covers Peripheral Interface Controller (PIC) PIC16F84, writing programs, interrupts, timing and counting. (178 pages, 2002)

Part No.	Description	Size	Weight	Price
215061CR	Easy Microcontrol'n	8.5" x 11.0"	1.2 lbs.	\$29.95

## PIC Microcontroller Project Book

### Comprehensive Beginner's Guide

**McGraw-Hill** Hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000) • Size: 7.3" x 9.2" • Wt.: 1.0 lbs.

Part No.	Description	Price
174650CR	PIC Beginner's Guide	\$29.95

# Programmable Logic – Standard Logic

Color Code Legend  
New Sale Qty. Save

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## Stamp Microcontrollers

DIP 



### 80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter. 256 x 8-bit RAM

**Hardware:** • On-chip oscillator & clock circuit • Operates DC to 12MHz

**Software:** • Full BASIC interpreter in ROM on a single chip  
• "Stand-alone" software development  
• Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647CR	80C52BASIC	40-pin CPU 8-bit CMOS w/ BASIC interpreter	\$32.09	\$28.89	\$25.99



### 50MIPS SX Microcontroller

Part No.	Parallax No.	Description	1	10	100
162931CR	SX28AC/DP	28-pin 50MIPS SX microcontroller	\$4.99	\$4.89	\$4.79

## Voice Chips

DIP 

### Single-Chip Voice Record/Playback Devices

#### 10 to 120 Second Durations (28-pin DIP)

- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages • On-chip clock source
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode) • 100k record cycles (typical)
- Playback can be edge or level-activated • 1 µA standby current (typical)
- 100-year message retention (typical) • On-chip automatic gain control (AGC)

Part No.	Product No.	Description	1	10	50
141671CR	ISD1110P	Voice record/playback (10 sec.)	\$4.29	\$3.99	\$3.79
107334CR	ISD1420P	Voice record/playback (20 sec.)	5.39	5.09	4.89
120643CR	ISD2560P	Voice record/playback (60 sec.)	9.19	8.59	7.79
120660CR	ISD2590P	Voice record/playback (90 sec.)	9.29	8.69	7.89
141655CR	ISD25120P	Voice record/playback (120 sec.)	9.99	9.49	8.79

## FPLA, PALs and GALs

DIP  PLCC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
27748CR	N82S100	DIP-28	16 x 48 x 8 field-prog. logic array, tri-state	\$14.95	\$13.49	\$12.15
28020CR	PAL16L8	DIP-20	Octal 16-input AND-OR-INVERT gate array	2.25	1.75	1.66
88399CR	16V8-10*	DIP-20	10ns 64 x 32 AND array	2.59	2.35	2.10
73452CR	16V8-15*	DIP-20	15ns 64 x 32 AND array	1.39	1.25	1.12
37461CR	16V8-25*	DIP-20	25ns 64 x 32 AND array	1.25	1.09	.99
88292CR	20V8-10**	DIP-24	10ns 64 x 40 AND array	1.85	1.60	1.43
38658CR	20V8-15**	DIP-24	15ns 64 x 40 AND array	1.74	1.41	1.19
38666CR	20V8-25**	DIP-24	25ns 64 x 40 AND array	1.63	1.46	1.23
235352CR	20VP8-25LJ	PLCC-28	15ns 64 x 40 AND array	1.63	1.46	1.23
123801CR	22V10-10	DIP-24	10ns 132 x 44 AND array	5.49	4.99	4.49
39159CR	22V10-15	DIP-24	15ns 132 x 44 AND array	4.49	3.95	3.55
39167CR	22V10-25	DIP-24	25ns 132 x 44 AND array	3.99	3.49	3.09

GALs are electrically erasable PLDs that can be used in place of numerous PALs

\* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6, 16RP8

\*\* Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

## PEEL™ Devices (CMOS)

DIP 

Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20 & 24-pin PLDs (PAL, GAL, EPPLD, etc.). Offering more architectural features so more logic can be put into every design.

Part No.	Cross Ref.	Pkg.	Description	1	10	100
105953CR	18CV8P-25	DIP-20	PLD superset 12 config. I/O pins (8) 25ns	\$2.25	\$1.99	\$1.79
105996CR	22CV10AP-25	DIP-24	PLD superset 4/12 config. I/O pins (10) 25ns	2.59	2.35	2.05

## 7400 Series

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
48979CR	7400N**	DIP-14	Quad 2-input NAND gate	\$ .65	\$ .55	\$ .45
49007CR	7401N	DIP-14	Quad 2-input NAND gate (O.C.)	.59	.50	.38
49015CR	7402N*	DIP-14	Quad 2-input NOR gate	.68	.56	.45
49040CR	7404N**	DIP-14	Hex inverter	.59	.49	.45
49074CR	7405N*	DIP-14	Hex inverter (O.C.)	.56	.43	.30
49091CR	7406N**	DIP-14	Hex inverter buffer/driver (O.C.)	.52	.45	.40

## 7400 Series (Continued)

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
49120CR	7407N**	DIP-14	Hex buffer/driver (O.C.)	\$ .40	\$ .37	\$ .32
49146CR	7408N*	DIP-14	Quad 2-input AND gate	.82	.63	.48
49189CR	7410N*	DIP-14	Triple 3-input NAND gate	.40	.36	.25
295777CR	7411N	DIP-16	Triple 3-input AND gate	.99	.89	.80
49402CR	7413N	DIP-14	Dual 4-input NAND gate Schmitt trigger	1.05	.87	.66
49437CR	7414N*	DIP-14	Hex inverter Schmitt trigger	.59	.54	.50
49630CR	7416N*	DIP-14	Hex inverter buffer/driver (O.C.)	.52	.44	.33
49728CR	7417N*	DIP-14	Hex buffer/driver (O.C. hi-voltage)	.91	.77	.58
50008CR	7420N*	DIP-14	Dual 4-input NAND gate	.56	.52	.45
50083CR	7425N	DIP-14	Dual 4-input NOR gate with strobe	.78	.75	.72
50139CR	7427N	DIP-14	Triple 3-input NOR gate	.68	.58	.43
50198CR	7428N	DIP-14	Quad 2-input NOR buffer	.76	.65	.48
50235CR	7432N*	DIP-14	Quad 2-input OR gate	.74	.64	.56
50315CR	7438N*	DIP-14	Quad 2-input NAND buffer (O.C.)	.56	.48	.37
50358CR	7440N	DIP-14	Dual 4-input NAND buffer	.55	.47	.35
50374CR	7442N	DIP-16	BCD-to-decimal decoder	1.29	1.02	.84
50403CR	7445N	DIP-16	BCD-to-decimal decoder/driver	1.19	1.05	.91
50411CR	7446N	DIP-16	BCD-to-7 segment decoder/driver	2.09	1.95	1.89
50420CR	7447N*	DIP-16	BCD-to-7 segment decoder/driver	1.49	1.29	.99
50518CR	7470N*	DIP-14	Edge-triggered JK flip-flop	.81	.69	.52
50526CR	7472N	DIP-14	AND gated JK master/slave flip-flop	2.25	1.91	1.43
50534CR	7473N	DIP-14	Dual JK flip-flop with clear	.99	.86	.68
50551CR	7474N**	DIP-14	Dual D flip-flop	.59	.49	.39
50577CR	7475N	DIP-16	4-bit bi-stable latch	2.95	2.75	2.49
50593CR	7476N	DIP-16	Dual JK flip-flop with preset and clear	1.49	1.41	1.37
50631CR	7483N	DIP-16	4-bit binary full adder	1.05	.91	.79
50657CR	7485N*	DIP-16	4-bit magnitude comparator	.93	.76	.56
50227CR	7430N*	DIP-14	8-input NAND gate	.56	.48	.37
50665CR	7486N	DIP-14	Quad EXCLUSIVE-OR gate	1.05	.85	.64
50681CR	7489N	DIP-16	64-bit RAM P 50ns	3.49	3.19	2.99
50690CR	7490N	DIP-14	Decade counter	1.49	1.15	.78
50737CR	7492N	DIP-14	Divide-by-12 counter	1.49	1.29	.95
50745CR	7493N	DIP-14	4-bit binary counter	1.49	1.34	1.19
50770CR	7495N*	DIP-14	4-bit parallel-access shift reg. (K155N)	.91	.78	.52
50796CR	7497N	DIP-16	Synch. 6-bit binary rate multipliers	2.49	2.11	1.55
49234CR	74107N*	DIP-14	Dual JK flip-flop with clear	.45	.38	.28
49293CR	74116N	DIP-24	Dual 4-bit latches with clear	1.55	1.32	.99
49322CR	74121N	DIP-14	Monostable multivibrator	1.15	1.05	.91
49349CR	74122N	DIP-14	Retriggerable mono. multivibrator w/ clear	1.02	1.00	.98
49357CR	74123N*	DIP-16	Dual retriggerable mono. multivibrator	1.15	1.09	.90
49373CR	74125N	DIP-14	Quad bus buffer tri-state (DM8093N)	1.11	.99	.86
49411CR	74132N*	DIP-14	Quad 2-input NAND Schmitt trigger	1.02	.79	.56
49496CR	74148N	DIP-16	8 to 3 line octal priority encoder	1.24	1.05	.79
49509CR	74150N	DIP-24	16 to 1 line multiplexer	1.95	1.75	1.55
49525CR	74151N*	DIP-16	8-input multiplexer	.56	.50	.39
49550CR	74153N*	DIP-16	Dual 4/1 data selector/multiplexer	.61	.45	.31
49568CR	74154N	DIP-24	4 to 16 line decoder/demultiplexer	2.25	1.95	1.75
49605CR	74157N*	DIP-16	Quad 2/1 data selector	.70	.58	.41
49648CR	74160N*	DIP-16	Decade counter with asynch. clear	.56	.48	.36
49664CR	74161N	DIP-16	Synchronous 4-bit counter	.70	.63	.50
49672CR	74163N	DIP-16	Synchronous 4-bit counter	.70	.63	.49
49681CR	74164N	DIP-14	8-bit serial shift register	.85	.72	.54
49699CR	74165N	DIP-16	8-bit serial shift register, parallel load	.99	.84	.63
49779CR	74174N*	DIP-16	Hex D-type flip-flop with clear	.99	.84	.63
49795CR	74175N*	DIP-16	Quad D-type flip-flop with clear	.85	.72	.54
49832CR	74180N	DIP-14	9-bit odd/even parity generator/checker	2.89	2.46	1.84
49841CR	74181N	DIP-24	Arithmetic logic unit/function generator	3.29	2.96	2.66
49883CR	74189N	DIP-16	64-bit RAM tri-state (DM8599N)	3.40	2.89	2.17
49904CR	74191N	DIP-16	Binary up/down counter	1.85	1.57	1.18
49912CR	74192N	DIP-16	Decade up/down counter with clear	3.69	3.39	3.19
49939CR	74193N	DIP-16	Binary up/down counter with clear	1.85	1.59	1.45
49955CR	74194N	DIP-16	4-bit bi-directional shift register	1.59	1.35	1.01
49963CR	74195N	DIP-16	4-bit parallel-access shift register	1.65	1.40	1.05
50171CR	74279N*	DIP-16	Quad set-reset latch	1.79	1.52	1.14
88225CR	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49	29.95

\* 10 pcs. in 7400 series IC cabinet kit, pg 23

\*\* 20 pcs. in 7400 series IC cabinet kit, pg 23



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## 74AC(T)XXX Advanced CMOS Logic Competitive Cross Reference Guide


Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
AC(T)	DIP	SN74AC(T)XXXN	74AC(T)XXXN	74AC(T)XXXPC	MC74AC(T)XXXN	74AC(T)XXXB	74AC(T)XXXN	TC74AC(T)XXXP
	DIP	CD74AC(T)XXE	74AC(T)XXXN	74AC(T)XXXPC	MC74AC(T)XXXN	74AC(T)XXXB	74AC(T)XXXN	TC74AC(T)XXXP
	SOIC	SN74AC(T)XXD/DW	74AC(T)XXXM	74AC(T)XXSC	MC74AC(T)XXD/DW	74AC(T)XXM	74AC(T)XXD	TC74AC(T)XXFN/FW
	SOIC	CD74AC(T)XXM	74AC(T)XXXM	74AC(T)XXSC	MC74AC(T)XXD/DW	74AC(T)XXM	74AC(T)XXD	TC74AC(T)XXFN/FW

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			 – Save 6-10%				Major Brands – Save up to 20%					
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74AC00	SOIC-14	Quad 2-input NAND gate	263880CR	SN74AC00D	.....*	\$ .16	\$ .156	263871CR	74AC00M	.....*	\$ .15	\$ .14
74AC00	DIP-14	Quad 2-input NAND gate	256858CR	SN74AC00N	.....28	.26	.18	211801CR	74AC00N	.....25	.21	.16
74AC02	SOIC-14	Quad 2-input NOR gate	264090CR	SN74AC02M	.....26	.23	.17	264081CR	74AC02M	.....24	.21	.157
74AC02	DIP-14	Quad 2-input NOR gate	256891CR	CD74AC02E	.....29	.26	.24	211810CR	74AC02N	.....20	.17	.13
74AC04	SOIC-14	Hex inverter	264111CR	SN74AC04D	.....*	.17	.15	264102CR	74AC04M	.....*	.16	.13
74AC04	DIP-14	Hex inverter	256903CR	SN74AC04N	.....26	.25	.202	211828CR	74AC04N	.....24	.20	.185
74AC08	SOIC-14	Quad 2-input AND gate	264137CR	SN74AC08D	.....26	.23	.18	264129CR	74AC08M	.....24	.21	.157
74AC08	DIP-14	Quad 2-input AND gate	256911CR	SN74AC08N	.....41	.35	.26	211836CR	74AC08N	.....20	.17	.13
74AC10	SOIC-14	Triple 3-input NAND gate	264153CR	SN74AC10D	.....26	.23	.175	264145CR	74AC10M	.....24	.21	.157
74AC10	DIP-14	Triple 3-input NAND gate	256920CR	SN74AC10N	.....41	.35	.25	238887CR	74AC10N	.....25	.24	.20
74AC11	SOIC-14	Triple 3-input AND gate	264170CR	SN74AC11D	.....32	.26	.18	264161CR	74AC11M	.....30	.23	.17
74AC11	DIP-14	Triple 3-input AND gate	256938CR	SN74AC11N	.....32	.26	.18	238895CR	74AC11N	.....30	.24	.17
74AC14	SOIC-14	Hex inverter with Schmitt trigger input	264209CR	SN74AC14D	.....20	.17	.15	264196CR	74AC14M	.....*	.149	.13
74AC14	DIP-14	Hex inverter with Schmitt trigger input	261366CR	SN74AC14N	.....23	.21	.20	211844CR	74AC14N	.....21	.18	.13
74AC20	SOIC-14	4-input NAND gate	264233CR	CD74AC20M	.....26	.23	.18	264225CR	74AC20M	.....24	.21	.157
74AC20	DIP-14	4-input NAND gate	261382CR	CD74AC20N	.....39	.32	.22	238836CR	74AC20N	.....\$ .41	.35	.29
74AC32	SOIC-14	Quad 2-input OR gate	264268CR	SN74AC32D	.....26	.23	.18	264241CR	74AC32M	.....24	.21	.16
74AC32	DIP-14	Quad 2-input OR gate	261391CR	SN74AC32N	.....41	.34	.25	211852CR	74AC32N	.....\$ .25	.21	.18
74AC74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	264284CR	SN74AC74D	.....31	.26	.193	264276CR	74AC74M	.....28	.24	.17
74AC74	DIP-14	Dual D-type pos. edge-triggered flip-flop	261403CR	SN74AC74N	.....40	.34	.24	211861CR	74AC74N	.....27	.24	.21
74AC86	SOIC-14	Quad 2-input exclusive OR gate	264305CR	SN74AC86D	.....20	.17	.14	264292CR	74AC86M	.....*	.149	.13
74AC86	DIP-14	Quad 2-input exclusive OR gate	261454CR	SN74AC86N	.....32	.26	.18	211879CR	74AC86N	.....29	.25	.18
74AC109	SOIC-16	Dual JK positive edge triggered flip-flop						264313CR	74AC109M	.....45	.39	.29
74AC109	DIP-16	Dual JK positive edge triggered flip-flop	261462CR	CD74AC109E	.....47	.40	.29	238908CR	74AC109N	.....43	.37	.269
74AC125	SOIC-16	Quad buffer with 3-state outputs						264321CR	74AC125M	.....48	.36	.27
74AC125	DIP-14	Quad buffer with 3-state outputs						238916CR	74AC125N	.....38	.36	.28
74AC138	SOIC-16	1 of 8 decoder/demultiplexer	264364CR	CD74AC138M	.....41	.34	.23	264348CR	74AC138M	.....38	.31	.21
74AC138	DIP-16	1 of 8 decoder/demultiplexer	261471CR	CD74AC138E	.....46	.35	.27	211887CR	74AC138N	.....42	.32	.23
74AC139	SOIC-16	Dual 1 of 4 decoder/demultiplexer	264508CR	CD74AC139M	.....56	.43	.32	264495CR	74AC139M	.....51	.39	.29
74AC139	DIP-16	Dual 1 of 4 decoder/demultiplexer	261500CR	CD74AC139E	.....49	.41	.29	238730CR	74AC139N	.....44	.37	.27
74AC151	SOIC-16	Quad buffer with 3-state outputs						264516CR	74AC151M	.....39	.32	.24
74AC151	DIP-16	Quad buffer with 3-state outputs	261526CR	CD74AC151E	.....46	.35	.26	238748CR	74AC151N	.....42	.32	.24
74AC153	SOIC-16	Dual 4-input multiplexer	264532CR	CD74AC153M	.....42	.36	.26	264524CR	74AC153M	.....39	.32	.24
74AC153	DIP-16	Dual 4-input multiplexer	261534CR	CD74AC153E	.....49	.41	.29	238756CR	74AC153N	.....44	.37	.27
74AC157	SOIC-16	Quad 2-input multiplexer	264559CR	CD74AC157M	.....41	.38	.34	264541CR	74AC157M	.....38	.32	.24
74AC157	DIP-16	Quad 2-input multiplexer	261542CR	CD74AC157E	.....47	.36	.27	238764CR	74AC157N	.....43	.32	.24
74AC161	SOIC-16	Synchronous presettable binary counter	264575CR	CD74AC161M	.....41	.37	.33	264567CR	74AC161M	.....\$ .37	.31	.27
74AC161	DIP-16	Synchronous presettable binary counter	261551CR	CD74AC161E	.....46	.35	.26	238772CR	74AC161N	.....42	.32	.24
74AC163	SOIC-16	Binary counter	264591CR	CD74AC163M	.....49	.41	.36	264583CR	74AC163M	.....44	.37	.27
74AC163	DIP-16	Binary counter	261585CR	CD74AC163E	.....50	.38	.29	238781CR	74AC163N	.....46	.35	.27
74AC169	SOIC-16	4-stage synchronous bidirectional counter						265818CR	74AC169M	.....68	.57	.47
74AC169	DIP-16	4-stage synchronous bidirectional counter						238799CR	74AC169N	.....93	.84	.77
74AC174	SOIC-16	HEX D-type flip-flop w/ master reset	264858CR	CD74AC174M	.....46	.35	.27	264840CR	74AC174M	.....42	.32	.24
74AC174	DIP-16	HEX D-type flip-flop w/ master reset	261593CR	CD74AC174E	.....50	.38	.29	238801CR	74AC174N	.....46	.35	.27
74AC175	SOIC-16	Quad D-type flip-flop	264874CR	CD74AC175M	.....46	.35	.26	264866CR	74AC175M	.....42	.32	.24
74AC175	DIP-16	Quad D-type flip-flop						238810CR	74AC175N	.....51	.42	.32
74AC191	SOIC-16	Up/down counter w/ preset & ripple clock						264903CR	74AC191M	.....\$1.65	1.15	.98
74AC191	DIP-16	Up/down counter w/ preset & ripple clock						238828CR	74AC191N	.....1.25	1.00	.76
74AC240	SOIC-20	Octal buffer/line driver w/ 3-state outputs	264971CR	SN74AC240DW	.....45	.36	.28	264938CR	74AC240M	.....41	.33	.25
74AC240	DIP-20	Octal buffer/line driver w/ 3-state outputs	261614CR	SN74AC240N	.....32	.264	.239	211895CR	74AC240N	.....30	.241	.218
74AC241	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265543CR	SN74AC241DW	.....45	.36	.28	265535CR	74AC241M	.....41	.33	.25

† Note: TI now owns GE, Harris &amp; RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

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Texas Instruments – Save 6-10%										Major Brands – Save up to 20%									
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100			Part No.	Cross Ref.	1	10	100					
74AC241	DIP-20	Octal buffer/line driver w/ 3-state outputs	261729CR	SN74AC241N	.45	.364	.276			238844CR	74AC241N	.41	.33	.25					
74AC244	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	265560CR	SN74AC244DW	.45	.36	.28			265551CR	74AC244M	.41	.33	.25					
74AC244	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	261796CR	SN74AC244N	.32	.26	.23			211908CR	74AC244N	.29	.25	.18					
74AC245	SOIC-20	Octal bidirectional trans. w/ 3-state I/O	265594CR	SN74AC245DW	.45	.36	.28			265586CR	74AC245M	.41	.33	.25					
74AC245	DIP-20	Octal bidirectional trans. w/ 3-state I/O	261817CR	SN74AC245N	.40	.35	.33			211916CR	74AC245N	.36	.30	.23					
74AC251	SOIC-16	8-input multiplexer w/ 3-state output	265615CR	CD74AC251M	.54	.47	.39			265607CR	74AC251M	.49	.43	.35					
74AC251	DIP-16	8-input multiplexer w/ 3-state output								238852CR	74AC251N	.41	.38	.34					
74AC253	SOIC-16	Dual 4-input multiplexer w/ 3-state outputs	265640CR	CD74AC253M	.49	.37	.28			265623CR	74AC253M	.44	.34	.25					
74AC253	DIP-16	Dual 4-input multiplexer w/ 3-state outputs								238861CR	74AC253N	.42	.32	.24					
74AC257	SOIC-16	Quad 2-input multiplexer	265666CR	CD74AC257M	.41	.37	.28			265658CR	74AC257M	.38	.32	.25					
74AC257	DIP-16	Quad 2-input multiplexer	261956CR	CD74AC257E	.41	.38	.36			238879CR	74AC257N	.38	.35	.33					
74AC273	SOIC-20	Octal D-type flip-flop	265682CR	CD74AC273M	.56	.53	.46			265674CR	74AC273M	.51	.48	.45					
74AC273	DIP-20	Octal D-type flip-flop	261964CR	CD74AC273E	.44	.38	.37			211924CR	74AC273N	.40	.34	.26					
74AC299	SOIC-20	8-input univ. shift/storage reg. w/com. parallel I/O pins								265826CR	74AC299M	1.79	1.45	1.09					
74AC299	DIP-20	8-input univ. shift/storage reg. w/com. parallel I/O pins								238924CR	74AC299N	1.35	1.25	1.05					
74AC373	SOIC-20	Octal transparent latch w/ 3-state outputs	265703CR	SN74AC373DW	.56	.52	.49			265691CR	74AC373M	.51	.48	.45					
74AC373	DIP-20	Octal transparent latch w/ 3-state outputs	261981CR	SN74AC373N	.54	.38	.32			211932CR	74AC373N	.40	.34	.26					
74AC374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	265720CR	SN74AC374DW	.30	.29	.27			265711CR	74AC374M	.30	.29	.25					
74AC374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	262035CR	SN74AC374N	.65	.59	.53			211941CR	74AC374N	.51	.43	.33					
74AC377	SOIC-20	Octal D-type flip flop w/ clock enable								265851CR	74AC377M	.66	.61	.54					
74AC377	DIP-20	Octal D-type flip flop w/ clock enable								242763CR	74AC377N	.71	.60	.46					
74AC399	DIP-16	Quad 2-port register								238941CR	74AC399N	1.85	1.69	1.52					
74AC521	SOIC-20	8-bit identity comparator								265869CR	74AC521M	<del>1.55</del> .96	.88	.76					
74AC521	DIP-20	8-bit identity comparator								238959CR	74AC521N	.98	.91	.77					
74AC540	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265746CR	CD74AC540M	.83	.74	.60			265738CR	74AC540M	.75	.67	.55					
74AC540	DIP-20	Octal buffer/line driver w/ 3-state outputs								238967CR	74AC540N	.54	.49	.46					
74AC541	SOIC-20	Octal buffer/line driver w/ 3-state outputs	265762CR	CD74AC541M	.83	.74	.59			265754CR	74AC541M	.75	.67	.55					
74AC541	DIP-20	Octal buffer/line driver w/ 3-state outputs	262051CR	CD74AC541E	.83	.66	.50			238975CR	74AC541N	.59	.52	.45					
74AC573	SOIC-20	Octal latch w/ 3-state outputs	265789CR	SN74AC573DW	.45	.36	.28			265771CR	74AC573M	.41	.33	.25					
74AC573	DIP-20	Octal latch w/ 3-state outputs	262086CR	SN74AC573N	.41	.36	.34			238983CR	74AC573N	.37	.33	.31					
74AC574	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	265800CR	SN74AC574DW	.45	.36	.28			265797CR	74AC574M	.41	.33	.25					
74AC574	DIP-20	Octal D-type flip-flop w/ 3-state outputs	262094CR	SN74AC574N	.63	.56	.49			238991CR	74AC574N	.57	.50	.45					

## 74ACT Series – ACT family offers TTL inputs with CMOS outputs



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Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100			Part No.	Cross Ref.	1	10	100					
74ACT00	SOIC-14	Quad 2-input NAND gate	265885CR	SN74ACT00D	.20	.19	.16			265877CR	74ACT00M	*	.17	.14					
74ACT00	DIP-14	Quad 2-input NAND gate	262326CR	SN74ACT00N	.28	.24	.20			211959CR	74ACT00N	.25	.23	.17					
74ACT02	SOIC-14	Quad 2-input NOR gate	265922CR	CD74ACT02M	.22	.20	.16			265914CR	74ACT02M	.20	.18	.14					
74ACT02	DIP-14	Quad 2-input NOR gate	262334CR	CD74ACT02E	.31	.29	.27			211967CR	74ACT02N	.28	.24	.18					
74ACT04	SOIC-14	Hex inverter	265949CR	SN74ACT04D	.22	.20	.16			265957CR	74ACT04M	.20	.18	.14					
74ACT04	DIP-14	Hex inverter	262342CR	SN74ACT04N	.28	.22	.18			211975CR	74ACT04N	.25	.21	.16					
74ACT08	SOIC-14	Quad 2-input AND gate	266141CR	SN74ACT08D	.20	.178	.15			266159CR	74ACT08M	*	.17	.13					
74ACT08	DIP-14	Quad 2-input AND gate	262351CR	SN74ACT08N	.31	.26	.18			211983CR	74ACT08N	.20	.16	.14					
74ACT10	SOIC-14	Triple 3-input NAND gate	266271CR	SN74ACT10D	.29	.26	.20			266263CR	74ACT10M	.26	.23	.19					
74ACT10	DIP-14	Triple 3-input NAND gate	262369CR	SN74ACT10N	.22	.20	.16			239046CR	74ACT10N	.20	.18	.14					
74ACT14	SOIC-14	Hex inverter with Schmitt trigger input	266301CR	SN74ACT14D	.22	.18	.16			266298CR	74ACT14M	.20	.18	.14					
74ACT14	DIP-14	Hex inverter with Schmitt trigger input	262377CR	SN74ACT14N	.25	.20	.16			211991CR	74ACT14N	.23	.18	.14					
74ACT32	SOIC-14	Quad 2-input OR gate	266378CR	SN74ACT32D	.22	.20	.16			266360CR	74ACT32M	.20	.18	.14					
74ACT32	DIP-14	Quad 2-input OR gate	262465CR	SN74ACT32N	.31	.26	.18			212003CR	74ACT32N	.28	.24	.17					
74ACT74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	266431CR	SN74ACT74D	.30	.26	.19			266423CR	74ACT74M	.27	.23	.176					
74ACT74	DIP-14	Dual D-type pos. edge-triggered flip-flop	262473CR	SN74ACT74N	.28	.24	.20			212011CR	74ACT74N	.25	.21	.16					
74ACT86	SOIC-14	Quad 2-input exclusive OR gate	266458CR	SN74ACT86D	.31	.29	.20			266440CR	74ACT86M	.28	.27	.19					
74ACT86	DIP-14	Quad 2-input exclusive OR gate	262481CR	SN74ACT86N	.22	.20	.16			212020CR	74ACT86N	.20	.18	.14					
74ACT125	SOIC-14	Quad buffer with 3-state outputs								266466CR	74ACT125M	.86	.73	.59					
74ACT125	DIP-14	Quad buffer with 3-state outputs								239003CR	74ACT125N	.32	.29	.24					

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SOIC



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				Texas Instruments – Save 6-10%				Major Brands – Save up to 20%					
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100	
74ACT138	SOIC-16	1 of 8 decoder/demultiplexer	266482CR	CD74ACT138M	.35	.32	.24	266474CR	74ACT138M	.32	.29	.22	
74ACT138	DIP-16	1 of 8 decoder/demultiplexer	262490CR	CD74ACT138E	.35	.30	.21	212038CR	74ACT138N	.23	.20	.15	
74ACT139	SOIC-16	Dual 1 of 4 decoder/demultiplexer	266503CR	CD74ACT139M	.41	.33	.25	266491CR	74ACT139M	.37	.30	.23	
74ACT139	DIP-16	Dual 1 of 4 decoder/demultiplexer	262502CR	CD74ACT139E	.41	.33	.23	239011CR	74ACT139N	.38	.31	.21	
74ACT151	SOIC-16	8-input multiplexer						266511CR	74ACT151M	.39	.30	.23	
74ACT151	DIP-16	8-input multiplexer						239020CR	74ACT151N	.51	.39	.29	
74ACT157	SOIC-16	Quad 2-input multiplexer	266538CR	CD74ACT157M	.32	.28	.25	266520CR	74ACT157M	.30	.27	.23	
74ACT157	DIP-16	Quad 2-input multiplexer	262529CR	CD74ACT157E	.43	.33	.25	239038CR	74ACT157N	.39	.30	.23	
74ACT161	SOIC-16	Synchronous binary counter	266554CR	CD74ACT161M	.69	.63	.51	266546CR	74ACT161M	.63	.57	.48	
74ACT161	DIP-16	Synchronous binary counter	262676CR	CD74ACT161E	.43	.35	.29	239071CR	74ACT161N	.39	.32	.27	
74ACT163	SOIC-16	Synchronous presettable binary counter	266571CR	CD74ACT163M	.43	.32	.25	266562CR	74ACT163M	.39	.30	.23	
74ACT163	DIP-16	Synchronous presettable binary counter	262684CR	CD74ACT163E	.54	.41	.31	239062CR	74ACT163N	.49	.37	.29	
74ACT174	SOIC-16	HEX D-type flip-flop with master reset	266634CR	CD74ACT174M	.41	.38	.36	266600CR	74ACT174M	.38	.35	.33	
74ACT174	DIP-16	HEX D-type flip-flop with master reset	262692CR	CD74ACT174E	.53	.46	.34	239054CR	74ACT174N	.48	.42	.31	
74ACT175	SOIC-16	Quad D-type flip-flop	266685CR	CD74ACT175M	.60	.54	.43	266677CR	74ACT175M	.55	.49	.40	
74ACT175	DIP-16	Quad D-type flip-flop	262799CR	CD74ACT175E	.60	.54	.43	239089CR	74ACT175N	.55	.49	.40	
74ACT240	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	266749CR	CD74ACT240DW	.50	.41	.31	266731CR	74ACT240M	.46	.37	.29	
74ACT240	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	262828CR	CD74ACT240N	.32	.28	.24	212046CR	74ACT240N	.30	.26	.19	
74ACT241	SOIC-20	Octal buffer/line driver with 3-state outputs	266773CR	SN74ACT241DW	.45	.36	.28	266765CR	74ACT241M	.41	.33	.25	
74ACT241	DIP-20	Octal buffer/line driver with 3-state outputs	263038CR	SN74ACT241N	.45	.36	.28	239097CR	74ACT241N	.41	.33	.25	
74ACT244	SOIC-20	Octal buffer/line driv. w/ 3-st. outputs	266909CR	SN74ACT244DW	.35	.30	.26	266896CR	74ACT244M	.32	.27	.24	
74ACT244	DIP-20	Octal buffer/line driv. w/ 3-st. outputs	263046CR	SN74ACT244N	.45	.36	.28	212054CR	74ACT244N	.41	.33	.25	
74ACT245	SOIC-20	Octal bidirectional trans. w/ 3-state I/O	266925CR	SN74ACT245DW	.44	.36	.28	266917CR	74ACT245M	.40	.33	.25	
74ACT245	DIP-20	Octal bidirectional trans. w/ 3-state I/O	263062CR	SN74ACT245N	.41	.37	.35	212062CR	74ACT245N	.38	.33	.25	
74ACT251	SOIC-16	8-input multiplexer						266933CR	74ACT251M	.46	.35	.26	
74ACT251	DIP-16	8-input multiplexer						239100CR	74ACT251N	.46	.35	.27	
74ACT257	SOIC-16	Quad 2-input multiplexer with 3-st. outputs	266968CR	CD74ACT257M	.67	.61	.55	266941CR	74ACT257M	.38	.35	.33	
74ACT257	DIP-16	Quad 2-input multiplexer with 3-st. outputs	263097CR	CD74ACT257E	.40	.31	.27	239126CR	74ACT257N	.36	.29	.24	
74ACT273	SOIC-20	Octal D-type flip-flop	266984CR	CD74ACT273M	.50	.41	.31	266976CR	74ACT273M	.46	.37	.29	
74ACT273	DIP-20	Octal D-type flip-flop	263100CR	CD74ACT273E	.41	.36	.28	212071CR	74ACT273N	.37	.34	.23	
74ACT373	SOIC-20	Octal transparent latch w/ 3-state outputs	267004CR	SN74ACT373DW	.44	.36	.28	266992CR	74ACT373M	.40	.33	.25	
74ACT373	DIP-20	Octal transparent latch w/ 3-state outputs	263177CR	SN74ACT373N	.45	.36	.28	212089CR	74ACT373N	.41	.33	.25	
74ACT374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	267021CR	SN74ACT374DW	.45	.36	.28	267012CR	74ACT374M	.41	.33	.25	
74ACT374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	263193CR	SN74ACT374N	.44	.36	.28	212097CR	74ACT374N	.40	.33	.25	
74ACT521	SOIC-20	8-bit identity comparator						267055CR	74ACT521M	.44	.36	.30	
74ACT521	DIP-20	8-bit identity comparator						235230CR	74ACT521N	.79	.60	.45	
74ACT533	SOIC-20	Octal transparent latch w/ 3-state outputs	267080CR	SN74ACT533DW	.49	.37	.28	267071CR	74ACT533M	.44	.34	.26	
74ACT533	DIP-20	Octal transparent latch w/ 3-state outputs	263425CR	SN74ACT533N	.57	.52	.39	235248CR	74ACT533N	.52	.47	.43	
74ACT541	SOIC-20	Octal buffer/line driver with 3-state outputs	267178CR	CD74ACT541M	.43	.38	.30	267151CR	74ACT541M	.39	.35	.29	
74ACT541	DIP-20	Octal buffer/line driver with 3-state outputs	263441CR	CD74ACT541E	.45	.36	.28	235264CR	74ACT541N	.41	.33	.25	
74ACT573	SOIC-20	Octal latch with 3-state outputs	267282CR	SN74ACT573DW	.45	.36	.27	267274CR	74ACT573M	.41	.33	.25	
74ACT573	DIP-20	Octal latch with 3-state outputs	263468CR	SN74ACT573	.63	.59	.55	235272CR	74ACT573N	.57	.54	.50	
74ACT574	SOIC-20	Octal D-type flip-flop	267346CR	SN74ACT574DW	.45	.36	.28	267338CR	74ACT574M	.41	.33	.25	
74ACT574	DIP-20	Octal D-type flip-flop	263476CR	SN74ACT574N	.63	.55	.45	235281CR	74ACT574N	.57	.54	.41	
74ACT715	SOIC-20	Programmable video sync. generator						267371CR	74ACT715M	\$11.39 9.45	8.49	7.65	
74ACT715	DIP-20	Programmable video sync. generator						235299CR	74ACT715N	8.69	8.24	7.49	

<sup>†</sup>Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

## TTL Logic Data Book

### Texas Instruments

Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

- Size: 6.0" x 8.5"
- Weight: 2.6 lbs.



Part No.	Description	1	10
88225CR	TTL Logic Data Book	\$34.95	\$31.49

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## 74AHC(T)XXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba	Samsung
AHC(T)	DIP	SN74AHC(T)XXXN	74AHC(T)XXXN	MM74VHC(T)XXXN	—	—	—	—	KS74AHC(T)XXXN
	SOIC	SN74AHC(T)XXXD/DW	74AHC(T)XXXM	MM74VHC(T)XXXM/WM	MC74VHC(T)XXXD	M74VHC(T)XXXM	74AHC(T)XXXD	TC74VHC(T)XXXFN/FW	—

### 74AHC Series – AHC family offers CMOS inputs with CMOS outputs

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Texas Instruments – Save 6-10%				Major Brands – Save up to 20%			
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100
74AHC00	SOIC-14	Quad 2-input positive NAND gate	<b>289641CR</b>	SN74AHC00D	\$.32	\$.27	\$.19
74AHC00	DIP-14	Quad 2-input positive NAND gate	<b>287726CR</b>	SN74AHC00N	.36	.30	.21
74AHC02	SOIC-14	Quad 2-input positive NOR gate	<b>289668CR</b>	SN74AHC02D	.32	.31	.22
74AHC02	DIP-14	Quad 2-input positive NOR gate	<b>287742CR</b>	SN74AHC02N	.36	.30	.21
74AHC04	SOIC-14	Hex inverter	<b>289721CR</b>	SN74AHC04D	.32	.31	.22
74AHC04	DIP-14	Hex inverter	<b>287751CR</b>	SN74AHC04N	.36	.30	.21
74AHC08	SOIC-14	Quad 2-input positive AND gate	<b>289764CR</b>	SN74AHC08D	.40	.32	.22
74AHC08	DIP-14	Quad 2-input positive AND gate	<b>287777CR</b>	SN74AHC08N	.36	.30	.21
74AHC14	SOIC-14	Hex inverter with Schmitt trigger input	<b>289799CR</b>	SN74AHC14D	.29	.25	.18
74AHC14	DIP-14	Hex inverter with Schmitt trigger input	<b>288171CR</b>	SN74AHC14N	.35	.291	.202
74AHC32	SOIC-14	Quad 2-input positive OR gate	<b>289932CR</b>	SN74AHC32D	.39	.319	.221
74AHC32	DIP-14	Quad 2-input positive OR gate	<b>288198CR</b>	SN74AHC32N	.41	.33	.23
74AHC74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	<b>289959CR</b>	SN74AHC74D	.40	.32	.22
74AHC74	DIP-14	Dual D-type pos. edge-triggered flip-flop	<b>288201CR</b>	SN74AHC74N	.30	.29	.21
74AHC86	SOIC-14	Quad 2-input exclusive OR gate	<b>289983CR</b>	SN74AHC86D	.22	.173	.156
74AHC86	DIP-14	Quad 2-input exclusive OR gate	<b>288219CR</b>	SN74AHC86N	.44	.355	.248
74AHC138	SOIC-16	3-line to 8-line decoders/demultiplexers	<b>290036CR</b>	SN74AHC138D	.42	.373	.304
74AHC138	DIP-16	3-line to 8-line decoders/demultiplexers	<b>288286CR</b>	SN74AHC138N	.46	.37	.26
74AHC139	SOIC-16	Dual 2-line to 4-line decoders/demultiplexers	<b>290061CR</b>	SN74AHC139D	.48	.38	.30
74AHC139	DIP-16	Dual 2-line to 4-line decoders/demultiplexers	<b>288294CR</b>	SN74AHC139N	.46	.37	.26
74AHC157	DIP-16	2 to 1 data selector/multiplexer	<b>288382CR</b>	SN74AHC157N	.60	.45	.34
74AHC240	SOIC-20	Octal buffer/driver w/ 3-st. outputs	<b>290108CR</b>	SN74AHC240DW	.50	.38	.29
74AHC240	DIP-20	Octal buffer/driver w/ 3-st. outputs	<b>288315CR</b>	SN74AHC240N	.29	.256	.248
74AHC244	SOIC-20	Octal buffer/driver w/ 3-st. outputs	<b>290175CR</b>	SN74AHC244DW	.41	.33	.25
74AHC244	DIP-20	Octal buffer/driver w/ 3-st. outputs	<b>288323CR</b>	SN74AHC244N	.36	.291	.221
74AHC245	SOIC-20	Octal bus transceiver w/ 3-state outputs	<b>290191CR</b>	SN74AHC245DW	.43	.33	.25
74AHC245	DIP-20	Octal bus transceiver w/ 3-state outputs	<b>288331CR</b>	SN74AHC245N	.37	.30	.23
74AHC373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	<b>290212CR</b>	SN74AHC373DW	.43	.33	.25
74AHC373	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	<b>288340CR</b>	SN74AHC373N	.30	.24	.22
74AHC374	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	<b>290247CR</b>	SN74AHC374DW	.29	.237	.212
74AHC374	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	<b>288358CR</b>	SN74AHC374N	.30	.24	.22
74AHC541	SOIC-20	Octal buffer/driver w/ 3-state outputs	<b>290271CR</b>	SN74AHC541DW	.50	.38	.29
74AHC541	DIP-20	Octal buffer/driver w/ 3-state outputs	<b>288366CR</b>	SN74AHC541N	.36	.291	.239
74AHC574	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	<b>290298CR</b>	SN74AHC574DW	.29	.237	.213
74AHC574	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	<b>288374CR</b>	SN74AHC574N	.37	.30	.23

### 74AHCT Series – AHCT family offers TTL inputs with CMOS outputs

AHC(T) = VHC(T)



SOIC



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Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100
74HCT00	SOIC-14	Quad 2-input positive NAND gate	<b>289051CR</b>	SN74AHCT00D	\$.24	\$.20	\$.16
74HCT00	DIP-14	Quad 2-input positive NAND gate	<b>288454CR</b>	SN74AHCT00N	.23	.15	.13
74HCT02	DIP-14	Quad 2-input positive NOR gate	<b>288489CR</b>	SN74AHCT02N	.36	.30	.21
74HCT04	SOIC-14	Hex inverter	<b>289086CR</b>	SN74AHCT04D	.21	.16	.14
74HCT04	DIP-14	Hex inverter	<b>288497CR</b>	SN74AHCT04N	.34	.30	.21
74HCT08	SOIC-14	Quad 2-input positive AND gate	<b>289140CR</b>	SN74AHCT08D	.21	.16	.15
74HCT08	DIP-14	Quad 2-input positive AND gate	<b>288569CR</b>	SN74AHCT08N	.32	.291	.202
74HCT14	SOIC-14	Hex inverter with Schmitt trigger input	<b>289166CR</b>	SN74AHCT14D	*	.146	.129
74HCT14	DIP-14	Hex inverter with Schmitt trigger input	<b>288577CR</b>	SN74AHCT14N	.35	.291	.202
74HCT74	SOIC-14	Dual D-type pos. edge-triggered flip-flop	<b>289262CR</b>	SN74AHCT74D	.29	.25	.18
74HCT74	DIP-14	Dual D-type pos. edge-triggered flip-flop	<b>288649CR</b>	SN74AHCT74N	.35	.291	.202
74HCT86	SOIC-14	Quad 2-input exclusive OR gate	<b>289289CR</b>	SN74AHCT86D	.23	.191	.166
74HCT86	DIP-14	Quad 2-input exclusive OR gate	<b>288657CR</b>	SN74AHCT86N	.23	.19	.17

<sup>†</sup> Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.



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## 74AHCT Series (Continued) – AHCT family offers TTL inputs with CMOS outputs

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74AHCT138	SOIC-16	3-line to 8-line decoders/demultiplexers	289318CR	SN74AHCT138D .....	\$ .50	\$ .40	\$ .30	289326CR	74AHCT138M .....	\$ .45	\$ .365	\$ .277
74AHCT138	DIP-16	3-line to 8-line decoders/demultiplexers	288673CR	SN74AHCT138N .....	.40	.33	.25	243248CR	74AHCT138N .....	.36	.32	.23
74AHCT139	SOIC-16	Dual 2-line to 4-line decoders/demultiplexers	289342CR	SN74AHCT139D .....	.48	.38	.30	289351CR	74AHCT139M .....	.44	.35	.277
74AHCT139	DIP-16	Dual 2-line to 4-line decoders/demultiplexers	288711CR	SN74AHCT139N .....	.29	.28	.20	243256CR	74AHCT139N .....	\$ .40 .26	.252	.185
74AHCT240	SOIC-20	Octal buffer/driver w/ 3-st. outputs	289385CR	SN74AHCT240DW .....	.45	.38	.29	289414CR	74AHCT240M .....	.41	.349	.269
74AHCT240	DIP-20	Octal buffer/driver w/ 3-st. outputs	288737CR	SN74AHCT240N .....	.29	.259	.248	214244CR	74AHCT240N .....	.26	.22	.17
74AHCT244	SOIC-20	Octal buffer/driver w/ 3-st. outputs	289449CR	SN74AHCT244DW .....	.43	.33	.25	289457CR	74AHCT244M .....	.39	.299	.227
74AHCT244	DIP-20	Octal buffer/driver w/ 3-st. outputs	288868CR	SN74AHCT244N .....	.29	.24	.21	63466CR	74AHCT244N .....	.26	.216	.19
74AHCT245	SOIC-20	Octal bus transceiver w/ 3-state outputs	289490CR	SN74AHCT245DW .....	.43	.33	.25	289481CR	74AHCT245M .....	.39	.299	.227
74AHCT245	DIP-20	Octal bus transceiver w/ 3-state outputs	288884CR	SN74AHCT245N .....	.36	.23	.22	43887CR	74AHCT245N .....	.33	.27	.20
74AHCT373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	289502CR	SN74AHCT373DW .....	.43	.33	.25	289511CR	74AHCT373M .....	.39	.299	.227
74AHCT373	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	288892CR	SN74AHCT373N .....	.29	.237	.212	43908CR	74AHCT373N .....	.26	.22	.17
74AHCT374	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	289561CR	SN74AHCT374DW .....	.29	.237	.212	289570CR	74AHCT374M .....	.26	.216	.193
74AHCT374	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288913CR	SN74AHCT374N .....	.29	.237	.212	43916CR	74AHCT374N .....	.26	.22	.17
74AHCT574	SOIC-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	289617CR	SN74AHCT574DW .....	.43	.33	.25	289633CR	74AHCT574M .....	.39	.30	.227
74AHCT574	DIP-20	Octal edge-trig. D-type flip-flop w/ 3-st. outputs	288964CR	SN74AHCT574N .....	.43	.33	.25	214252CR	74AHCT574N .....	.39	.299	.227

## 74ABTXXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	Philips
ABT	DIP	SN74ABTXXXN	74ABTXXXN	74ABTXXXPC	74ABTXXXN
	SOIC	SN74ABTXXXD/DW	74ABTXXXD	74ABTXXXSC	74ABTXXXD

## 74ABT Series – BiCMOS Technology for High Performance Bus Systems

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 – Save 6-10%

Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74ABT125	SOIC-14	Quad buffer w/ 3-state outputs	290811CR	SN74ABT125D .....	\$ .51	\$ .41	\$ .31	290837CR	74ABT125D .....	\$ .45	\$ .365	\$ .277
74ABT125	DIP-14	Quad bus buffer gate w/ 3-state outputs	290482CR	SN74ABT125N .....	.41	.34	.29	290351CR	74ABT125N .....	.36	.291	.27
74ABT240	SOIC-20	Octal buffer/driver w/ 3-state outputs	290909CR	SN74ABT240ADW .....	.82	.62	.48	290917CR	74ABT240AD .....	.72	.55	.42
74ABT240	DIP-20	Octal buffer/driver w/ 3-state outputs	290503CR	SN74ABT240AN .....	.72	.62	.47	290360CR	74ABT240AN .....	.63	.55	.42
74ABT241	SOIC-20	Octal buffer/driver w/ 3-state outputs	290941CR	SN74ABT241ADW .....	.82	.62	.48	290950CR	74ABT241AD .....	.72	.548	.42
74ABT244	SOIC-20	Octal buffer/driver w/ 3-state outputs	291160CR	SN74ABT244ADW .....	.67	.51	.39	291178CR	74ABT244AD .....	.59	.45	.34
74ABT244	DIP-20	Octal buffer/driver w/ 3-state outputs	290511CR	SN74ABT244AN .....	.67	.51	.39	290378CR	74ABT244AN .....	.59	.448	.344
74ABT245	SOIC-20	Octal bus transceiver w/ 3-state outputs	291186CR	SN74ABT245BDW .....	.67	.51	.39	291194CR	74ABT245BD .....	.59	.448	.344
74ABT245	DIP-20	Octal bus transceiver w/ 3-state outputs	290520CR	SN74ABT245BN .....	.67	.51	.39	290386CR	74ABT245BN .....	.59	.448	.344
74ABT373	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	291223CR	SN74ABT373DW .....	.65	.491	.373	291240CR	74ABT373D .....	.59	.448	.344
74ABT373	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290546CR	SN74ABT373N .....	.65	.491	.377	290415CR	74ABT373N .....	.59	.448	.34
74ABT374	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	291266CR	SN74ABT374ADW .....	.67	.51	.39	291274CR	74ABT374AD .....	.59	.448	.344
74ABT374	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290589CR	SN74ABT374AN .....	.65	.491	.373	290423CR	74ABT374AN .....	.59	.448	.344
74ABT377	SOIC-20	Octal edge-triggered D-type flip-flop w/ clock enable	291354CR	SN74ABT377ADW .....	.74	.56	.43	291362CR	74ABT377AD .....	.66	.50	.378
74ABT534	SOIC-20	Octal edge-triggered D-type flipflop w/ 3-st. outputs	291371CR	SN74ABT534ADW .....	.79	.66	.59	291389CR	74ABT534AD .....	.73	.65	.59
74ABT541	SOIC-20	Octal buffer/driver w/ 3-state outputs	291418CR	SN74ABT541BDW .....	.66	.47	.42	291426CR	74ABT541BD .....	.58	.398	.37
74ABT541	DIP-20	Octal buffer/driver w/ 3-state outputs	290685CR	SN74ABT541BN .....	.74	.56	.43	290440CR	74ABT541BN .....	.66	.498	.378
74ABT573	SOIC-20	Octal transparent D-type latch w/ 3-st. outputs	291442CR	SN74ABT573ADW .....	.65	.49	.38	291469CR	74ABT573AD .....	.59	.448	.34
74ABT573	DIP-20	Octal transparent D-type latch w/ 3-st. outputs	290693CR	SN74ABT573AN .....	.67	.51	.39	290431CR	74ABT573AN .....	.59	.448	.344
74ABT574	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	291557CR	SN74ABT574ADW .....	.67	.51	.39	291565CR	74ABT574AD .....	.59	.45	.34
74ABT574	DIP-20	Octal D-type flip-flop w/ 3-state outputs	290706CR	SN74ABT574AN .....	.32	.309	.304	290458CR	74ABT574AN .....	.35	.309	.304
74ABT646	SOIC-20	Octal bus transceiver w/ 3-state outputs	291602CR	SN74ABT646ADW .....	1.25	1.06	.86	291637CR	74ABT646AD .....	1.15	.97	.78
74ABT646	DIP-24	Octal bus transceiver w/ 3-state outputs	290714CR	SN74ABT646ANT .....	1.29	1.09	.87	290466CR	74ABT646AN .....	1.15	.97	.78
74ABT652	SOIC-24	Octal registered transceivers w/ 3-st. outputs	291741CR	SN74ABT652ADW .....	1.35	1.12	.89	291733CR	74ABT652AD .....	1.15	.99	.80
74ABT2240	SOIC-20	Octal buffer/driver w/ 3-state outputs	291750CR	SN74ABT2240ADW .....	.82	.62	.47	291768CR	74ABT2240AD .....	.72	.55	.416
74ABT2244	SOIC-20	Octal buffer/driver w/ 30 ohms series resistors, 3-st.	291776CR	SN74ABT2244ADW .....	.65	.491	.377	291784CR	74ABT2244AD .....	.59	.448	.34
74ABT2244	DIP-20	Octal buffer/driver w/ 30 ohms series resistors, 3-st.	290722CR	SN74ABT2244AN .....	.65	.491	.377	290343CR	74ABT2244AN .....	.59	.448	.344
74ABT5402	SOIC-28	12-bit line/memory driver w/ 3-state outputs	291397CR	SN74ABT5402ADW .....	3.09	2.69	2.53	291400CR	74ABT5402AD .....	2.79	2.69	2.53

<sup>†</sup> Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; and Philips now owns Signetics.

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## 74HC(T)XXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
HC(T)	DIP	SN74HC(T)XXXN	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	DIP	CD74HC(T)XXE	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	SOIC	SN74HC(T)XXXD/DW	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW
	SOIC	CD74HC(T)XXXM	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW

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Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74HC00	SOIC-14	Quad 2-input NAND gate	251889CR	SN74HC00D	.23	.15	.10	197106CR	74HC00M	.21	.13	.09
74HC00	DIP-14	Quad 2-input NAND gate	250966CR	SN74HC00N	.24	.23	.16	45161CR	74HC00N	.22	.19	.14
74HC02	SOIC-14	Quad 2-input NOR gate	251926CR	SN74HC02D	.23	.22	.20	197114CR	74HC02M	.21	.20	.18
74HC02	DIP-14	Quad 2-input NOR gate	250974CR	SN74HC02N	*	.18	.13	45188CR	74HC02N	*	.15	.11
74HC04	SOIC-14	Hex inverter (buffered)	251934CR	SN74HC04D	.22	.17	.16	197122CR	74HC04M	.20	.17	.13
74HC04	DIP-14	Hex inverter (buffered)	250982CR	SN74HC04N	.25	.22	.17	45209CR	74HC04N	.23	.20	.15
74HC08	SOIC-14	Quad 2-input AND gate	251942CR	SN74HC08D	.23	.20	.19	197131CR	74HC08M	.21	.149	.134
74HC08	DIP-14	Quad 2-input AND gate	251002CR	SN74HC08N	.20	.16	.11	45225CR	74HC08N	*	.13	.10
74HC10	SOIC-14	Triple 3-input NAND gate	251951CR	SN74HC10D	.31	.28	.20	243272CR	74HC10M	.29	.26	.18
74HC10	DIP-14	Triple 3-input NAND gate	251011CR	SN74HC10N	.25	.20	.14	45233CR	74HC10N	.23	.18	.13
74HC11	DIP-14	Triple 3-input AND gate	251037CR	SN74HC11N	.31	.28	.20	45268CR	74HC11N	.29	.25	.18
74HC14	SOIC-14	Hex inverter Schmitt trigger	251969CR	SN74HC14D	.24	.22	.20	197149CR	74HC14M	.22	.20	.18
74HC14	DIP-14	Hex inverter Schmitt trigger	251045CR	SN74HC14N	.24	.21	.18	45364CR	74HC14N	.22	.19	.17
74HC30	SOIC-14	8-input NAND gate	251985CR	CD74HC30M	.31	.28	.20	243281CR	74HC30M	.29	.26	.18
74HC30	DIP-14	8-input NAND gate	251070CR	CD74HC30E	.31	.28	.20	45786CR	74HC30N	.29	.25	.18
74HC32	SOIC-14	Quad 2-input OR gate	251993CR	SN74HC32D	*	.16	.12	197157CR	74HC32M	*	.16	.12
74HC32	DIP-14	Quad 2-input OR gate	251088CR	SN74HC32N	.30	.25	.22	45794CR	74HC32N	.28	.24	.18
74HC74	SOIC-14	Dual D flip-flop	252030CR	SN74HC74D	.22	.18	.17	197165CR	74HC74M	.20	.17	.13
74HC74	DIP-14	Dual D flip-flop	251096CR	SN74HC74N	.38	.35	.31	46130CR	74HC74N	.35	.32	.29
74HC85	SOIC-16	4-bit magnitude comparator	252048CR	CD74HC85M	.59	.54	.49	243299CR	74HC85M	.43	.41	.37
74HC85	DIP-16	4-bit magnitude comparator	251109CR	CD74HC85E	.47	.45	.40	46172CR	74HC85N	.45	.38	.29
74HC86	SOIC-14	Quad Exclusive OR gate	252056CR	SN74HC86D	*	.16	.15	243301CR	74HC86M	*	.15	.14
74HC86	DIP-14	Quad Exclusive-OR gate	251133CR	SN74HC86N	.27	.24	.22	46181CR	74HC86N	.25	.22	.20
74HC123	SOIC-16	Dual retriggerable monostable multivibrator	252064CR	CD74HC123M	.41	.34	.23	243310CR	74HC123M	.38	.31	.21
74HC123	DIP-16	Dual retriggerable monostable multivibrator	251184CR	CD74HC123E	.40	.33	.23	45292CR	74HC123N	.37	.30	.21
74HC125	SOIC-14	Quad bus buffer tri-state	252072CR	SN74HC125D	*	.15	.14	243328CR	74HC125M	*	.14	.13
74HC125	DIP-14	Quad bus buffer tri-state	251192CR	SN74HC125N	.33	.29	.24	45305CR	74HC125N	\$.30	.24	.15
74HC132	SOIC-14	Quad 2-input NAND Schmitt trigger	252099CR	SN74HC132D	.23	.19	.17	243731CR	74HC132M	.21	.18	.16
74HC132	DIP-14	Quad 2-input NAND Schmitt trigger	251205CR	SN74HC132N	.35	.29	.20	45321CR	74HC132N	.32	.27	.21
74HC138	SOIC-16	3-to-8 decoder/demultiplexer	252099CR	SN74HC138D	.32	.27	.20	197173CR	74HC138M	.29	.25	.18
74HC138	DIP-16	3-to-8 decoder/demultiplexer	251213CR	SN74HC138N	.33	.29	.20	45330CR	74HC138N	.30	.27	.18
74HC139	SOIC-16	2 to 4 decoder/demultiplexer	252101CR	SN74HC139D	.35	.29	.20	243740CR	74HC139M	.32	.27	.18
74HC139	DIP-16	2-to 4 decoder/demultiplexer	251221CR	SN74HC139N	.40	.34	.25	45356CR	74HC139N	.37	.31	.23
74HC154	SOIC-24	4/16 line decoder	252110CR	CD74HC154M	.45	.34	.255	243758CR	74HC154WM	.40	.30	.23
74HC154	DIP-24	4/16 line decoder (.6"W)	251230CR	CD74HC154E	.88	.72	.65	111739CR	74HC154WN	.75	.65	.58
74HC154	DIP-24	4/16 line decoder (.3"W)	251248CR	CD74HC154EN	.81	.70	.63	45401CR	74HC154N	.78	.64	.58
74HC157	SOIC-16	Quad 2-input multiplexer	252136CR	SN74HC157D	.23	.19	.17	243766CR	74HC157M	.21	.18	.16
74HC157	DIP-16	Quad 2-input multiplexer	252199CR	SN74HC157N	.40	.33	.25	45428CR	74HC157N	.37	.30	.23
74HC161	SOIC-16	Synchronous 4-bit counter	252144CR	SN74HC161D	.30	.23	.20	243774CR	74HC161M	.28	.21	.18
74HC161	DIP-16	Synchronous 4-bit counter	251301CR	SN74HC161N	.39	.33	.25	45452CR	74HC161N	.36	.31	.23
74HC163	DIP-16	Synchronous 4-bit counter	251310CR	SN74HC163N	.30	.25	.24	45479CR	74HC163N	.28	.24	.18
74HC164	SOIC-14	8-bit serial shift register	252152CR	SN74HC164D	.40	.33	.25	197181CR	74HC164M	.37	.30	.23
74HC164	DIP-14	8-bit serial shift register	251328CR	SN74HC164N	.41	.33	.25	45487CR	74HC164N	.38	.30	.23
74HC165	SOIC-16	Parallel load 8-bit serial shift register	252161CR	SN74HC165D	.36	.29	.22	197190CR	74HC165M	.41	.34	.25
74HC165	DIP-16	Parallel load 8-bit serial shift register	251336CR	SN74HC165N	.35	.30	.22	45495CR	74HC165N	.32	.27	.20
74HC174	SOIC-16	Hex D flip-flop with clear	252179CR	SN74HC174D	.27	.23	.21	243782CR	74HC174M	.25	.21	.19
74HC174	DIP-16	Hex D flip-flop with clear	251352CR	SN74HC174N	.41	.33	.25	45508CR	74HC174N	.38	.30	.23
74HC192	DIP-16	Decade up/down counter with clear	251395CR	CD74HC192E	1.72	1.57	1.39	45541CR	74HC192N	1.59	1.45	1.29
74HC193	SOIC-16	Binary up/down counter with clear	252187CR	SN74HC193D	.30	.26	.23	243791CR	74HC193M	.28	.25	.21
74HC193	DIP-16	Binary up/down counter with clear	251387CR	SN74HC193N	.34	.27	.25	45559CR	74HC193N	.31	.26	.20
74HC221	SOIC-16	Dual mono. multivibrator Schmitt trigger	252259CR	CD74HC221M	.48	.45	.42	243803CR	74HC221AM	.43	.41	.37

<sup>†</sup> Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.




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Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74HC221	DIP-16	Dual mono. multivibrator Schmitt trigger	251408CR	CD74HC221E .....	\$.48	\$.40	\$.30	45604CR	74HC221N .....	\$.43	\$.35	\$.27
74HC240	SOIC-20	Octal inverting line driver tri-state	252267CR	SN74HC240DW .....	.34	.29	.22	243811CR	74HC240WM .....	.31	.27	.20
74HC240	DIP-20	Octal inverting line driver tri-state	251416CR	SN74HC240N .....	.34	.32	.26	45612CR	74HC240N .....	.30	.26	.19
74HC244	SOIC-20	Octal driver tri-state	252275CR	SN74HC244DW .....	.34	.29	.22	197202CR	74HC244M .....	.31	.26	.20
74HC244	DIP-20	Octal driver tri-state	251424CR	SN74HC244N .....	.49	.42	.31	45655CR	74HC244N .....	.45	.39	.35
74HC245	SOIC-20	Octal transceiver tri-state	252291CR	SN74HC245DW .....	.34	.29	.22	197211CR	74HC245M .....	.31	.27	.20
74HC245	DIP-20	Octal transceiver tri-state	251432CR	SN74HC245N .....	.49	.41	.31	45671CR	74HC245N .....	.45	.38	.29
74HC273	SOIC-20	Octal D-type flip-flops with clear	252304CR	SN74HC273DW .....	.35	.29	.22	243820CR	74HC273WM .....	.32	.27	.20
74HC273	DIP-20	Octal D-type flip-flop with clear	251459CR	SN74HC273N .....	.26	.23	.19	45743CR	74HC273N .....	.24	.20	.15
74HC373	SOIC-20	Octal D-type flip-flop tri-state	252312CR	SN74HC373DW .....	.34	.29	.22	197229CR	74HC373M .....	.31	.26	.20
74HC373	DIP-20	Octal D-type flip-flop tri-state	251475CR	SN74HC373N .....	.49	.42	.38	45831CR	74HC373N .....	.45	.39	.35
74HC374	SOIC-20	Octal D-type flip-flop edge-trig tri-state	252321CR	SN74HC374DW .....	.34	.29	.22	197237CR	74HC374M .....	.31	.208	.185
74HC374	DIP-20	Octal D-type flip-flop edge-trig tri-state	251483CR	SN74HC374N .....	.53	.42	.31	45858CR	74HC374N .....	.49	.39	.29
74HC393	SOIC-14	Dual 4-bit binary counter	252339CR	SN74HC393D .....	.32	.29	.275	243838CR	74HC393M .....	.29	.27	.20
74HC393	DIP-14	Dual 4-bit binary counter	251504CR	SN74HC393N .....	.36	.29	.22	45874CR	74HC393N .....	.33	.27	.20
74HC540	SOIC-20	Octal invert. buffer/line driver tri-state	252347CR	SN74HC540DW .....	.32	.28	.24	243846CR	74HC540WM .....	.29	.27	.22
74HC540	DIP-20	Octal invert. buffer/line driver tri-state	251512CR	SN74HC540N .....	.36	.29	.22	109760CR	74HC540N .....	.33	.27	.20
74HC541	SOIC-20	Octal buffer/line driver tri-state	252355CR	SN74HC541DW .....	.36	.29	.22	243854CR	74HC541WM .....	.33	.27	.20
74HC541	DIP-20	Octal buffer/line driver tri-state	251521CR	SN74HC541N .....	.36	.29	.22	46050CR	74HC541N .....	.33	.27	.20
74HC573	SOIC-20	Octal D-type flip-flop tri-state	252363CR	SN74HC573ADW .....	.36	.29	.22	197245CR	74HC573M .....	.33	.27	.20
74HC573	DIP-20	Octal D-type flip-flop tri-state	251547CR	SN74HC573AN .....	.36	.29	.22	46076CR	74HC573N .....	.33	.27	.20
74HC574	SOIC-20	Octal D-type flip-flop tri-state	252371CR	SN74HC574DW .....	.30	.25	.18	197253CR	74HC574M .....	.28	.23	.17
74HC574	DIP-20	Octal D-type flip-flop tri-state	251555CR	SN74HC574N .....	.36	.29	.22	46084CR	74HC574N .....	.33	.27	.20
74HC590	DIP-16	8-bit binary counter w/ output reg. tri-state	251635CR	SN74HC590AN .....	.33	.26	.24	88090CR	74HC590N .....	.30	.26	.19
74HC595	SOIC-16	8-bit serial-to-parallel shift reg. tri-state	252523CR	SN74HC595D .....	.34	.29	.27	245075CR	74HC595M .....	.31	.27	.25
74HC595	DIP-16	8-bit serial-to-parallel shift reg. tri-state	251643CR	SN74HC595N .....	.67	.48	.42	46105CR	74HC595N .....	.62	.44	.39
74HC688	SOIC-20	8-bit mag. comparator	252531CR	SN74HC688DW .....	.52	.46	.43	245083CR	74HC688WM .....	.48	.42	.40
74HC688	DIP-20	8-bit mag. comparator	251651CR	SN74HC688N .....	.57	.49	.46	46113CR	74HC688N .....	.52	.42	.31
74HC4017	DIP-16	Decade ctr./div. with 10 decoded outputs	251660CR	CD74HC4017E .....	.56	.51	.39	45891CR	74HC4017N .....	.50	.42	.34
74HC4020	SOIC-16	14-stage binary counter	252540CR	SN74HC4020D .....	.45	.20	.18	245091CR	74HC4020M .....	.41	.20	.17
74HC4020	DIP-16	14-stage binary counter	251678CR	CD74HC4020E .....	.47	.38	.285	45903CR	74HC4020N .....	.41	.33	.26
74HC4040	SOIC-16	12-stage binary counter	252558CR	SN74HC4040D .....	.27	.25	.22	245104CR	74HC4040M .....	.25	.23	.18
74HC4040	DIP-16	12-stage binary counter	251686CR	SN74HC4040N .....	.26	.21	.18	45920CR	74HC4040N .....	.24	.19	.17
74HC4046	SOIC-16	Phase lock loop	252460CR	CD74HC4046AM .....	.45	.36	.28	243900CR	74HC4046M .....	.41	.33	.26
74HC4046	DIP-16	Phase lock loop	251694CR	CD74HC4046AE .....	.39	.34	.285	45938CR	74HC4046N .....	.35	.30	.22
74HC4049	SOIC-16	HEX inverting buffers	252478CR	CD74HC4049M .....	.36	.33	.30	243918CR	74HC4049M .....	.32	.29	.27
74HC4049	DIP-16	Hi speed HEX inverting buffers	272049CR	CD74HC4049E .....	.40	.38	.29	272057CR	74HC4049N .....	.36	.34	.27
74HC4050	SOIC-16	HEX non-inverting buffers	252486CR	CD74HC4050M .....	.36	.33	.285	243926CR	74HC4050M .....	.32	.29	.25
74HC4050	DIP-16	Hi speed HEX non-inverting buffers	272065CR	CD74HC4050E .....	.41	.36	.28	272073CR	74HC4050N .....	.38	.33	.25
74HC4051	SOIC-16	Single 8-channel multiplexer/demultiplexer	252380CR	CD74HC4051M .....	.39	.36	.285	243862CR	74HC4051M .....	.35	.32	.26
74HC4051	DIP-16	Single 8-channel multiplexer/demultiplexer	251707CR	CD74HC4051E .....	.34	.26	.245	88102CR	74HC4051N .....	.30	.26	.19
74HC4052	SOIC-16	Hi speed analog multiplexer/demultiplexer	252494CR	CD74HC4052M .....	.40	.34	.255	245059CR	74HC4052M .....	.36	.30	.23
74HC4052	DIP-16	Hi speed analog multiplexer/demultiplexer	272081CR	CD74HC4052E .....	.43	.33	.25	272090CR	74HC4052N .....	.39	.30	.23
74HC4053	SOIC-16	Hi speed analog multiplexer/demultiplexer	252515CR	CD74HC4053M .....	.38	.35	.28	245067CR	74HC4053M .....	.35	.32	.26
74HC4053	DIP-16	Hi speed analog multiplexer/demultiplexer	272111CR	CD74HC4053E .....	.35	.31	.25	272129CR	74HC4053N .....	.32	.31	.25
74HC4060	SOIC-16	14-stage binary counter	252419CR	SN74HC4060D .....	.43	.33	.25	243871CR	74HC4060M .....	.40	.30	.23
74HC4060	DIP-16	14-stage binary counter	251803CR	SN74HC4060N .....	.43	.33	.25	45962CR	74HC4060N .....	.40	.30	.23
74HC4066	SOIC-14	Quad analog switch	252435CR	SN74HC4066D .....	.33	.30	.28	243889CR	74HC4066M .....	.30	.28	.26
74HC4066	DIP-14	Quad analog switch	251811CR	SN74HC4066N .....	.40	.35	.32	45971CR	74HC4066N .....	.35	.30	.22
74HC4316	SOIC-16	Hi speed quad analog switches w/ level translation	252566CR	CD74HC4316M .....	.45	.41	.30	245112CR	74HC4316M .....	.40	.35	.27
74HC4316	DIP-16	Hi speed quad analog switches w/ level translation	272145CR	CD74HC4316E .....	.41	.36	.31	272153CR	74HC4316N .....	.38	.32	.27
74HC4514	DIP-24	4/16-line decoder with latch (.3"W)	251820CR	CD74HC4514E .....	1.69	1.54	1.40	46009CR	74HC4514N .....	.81	.79	.68
74HC4538	SOIC-16	Dual retriq. mono. multivibrator	252443CR	CD74HC4538M .....	.46	.42	.39	243897CR	74HC4538M .....	.42	.39	.36
74HC4538	DIP-16	Dual retriq. mono. multivibrator	251838CR	CD74HC4538E .....	.47	.428	.34	46017CR	74HC4538N .....	.43	.39	.28

† Note: TI now owns GE, Harris &amp; RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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## 74HC(T)XXX CMOS Logic Competitive Cross Reference Guide


Family	Package	TI	Jameco	Fairchild	On Semi	ST Micro	Philips	Toshiba
HC(T)	DIP	SN74HC(T)XXXN	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	DIP	CD74HC(T)XXE	74HC(T)XXXN	MM74HC(T)XXXN	MC74HC(T)XXXN	M74HC(T)XXXBIR	74HC(T)XXXN	TC74HC(T)XXXAP
	SOIC	SN74HC(T)XXXD/DW	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW
	SOIC	CD74HC(T)XXXM	74HC(T)XXXM/MM	MM74HC(T)XXXM/MM	MC74HC(T)XXXD	M74HC(T)XXXMIR	74HC(T)XXXD	TC74HC(T)XXXAF/AFW

## 74HCT Series – HCT family offers TTL inputs with CMOS outputs



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			<div> – Save 6-10%</div>				<div>Major Brands – Save up to 20%</div>							
Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100		
74HCT00	SOIC-14	Quad 2-input NAND gate	246393CR	SN74HCT00D	.....*	\$ .16	\$ .15	246027CR	74HCT00M	.....*	\$ .15	\$ .14		
74HCT00	DIP-14	Quad 2-input NAND gate	246406CR	SN74HCT00N	.....26	.23	.20	44871CR	74HCT00N	.....24	.20	(15)		
74HCT02	SOIC-14	Quad 2-input positive NOR gate	268373CR	SN74HCT02D	.....31	.28	.223	268390CR	74HCT02M	.....28	.24	.203		
74HCT02	DIP-14	Quad 2-input NOR gate	246414CR	SN74HCT02N	.....40	.319	.221	44880CR	74HCT02N	.....36	.291	.202		
74HCT04	SOIC-14	Hex inverter	246369CR	SN74HCT04D	.....20	.155	.138	246035CR	74HCT04M	.....*	.141	.126		
74HCT04	DIP-14	Hex inverter	246422CR	SN74HCT04N	.....25	.22	.20	44898CR	74HCT04N	.....23	.20	(15)		
74HCT08	SOIC-14	Quad 2-input AND gate	246078CR	SN74HCT08D	.....*	.16	.14	246043CR	74HCT08M	.....*	.15	.126		
74HCT08	DIP-14	Quad 2-input AND gate	246431CR	SN74HCT08N	.....20	.155	.138	44901CR	74HCT08N	.....*	.141	(11)		
74HCT14	SOIC-14	Hex inverter Schmitt trigger	246377CR	SN74HCT14D	.....21	.173	.156	246060CR	74HCT14M	.....*	.158	.143		
74HCT14	DIP-14	Hex inverter Schmitt trigger	246449CR	SN74HCT14N	.....22	.173	.156	44935CR	74HCT14N	.....20	.158	.143		
74HCT32	SOIC-14	Quad 2-input OR gate	246318CR	SN74HCT32D	.....*	.146	.14	246123CR	74HCT32M	.....*	.141	.126		
74HCT32	DIP-14	Quad 2-input OR gate	246457CR	SN74HCT32N	.....\$23	.20	.164	.156	45057CR	74HCT32N	.....*	.149	(112)	
74HCT74	SOIC-14	Dual D flip-flop	246262CR	SN74HCT74D	.....*	.173	.156	246254CR	74HCT74M	.....*	.158	.143		
74HCT74	DIP-14	Dual D flip-flop	246465CR	SN74HCT74N	.....27	.228	.202	45137CR	74HCT74N	.....25	.21	(16)		
74HCT86	SOIC-14	Quad 2-input exclusive OR gate	268411CR	CD74HCT86M	.....36	.32	.26	268429CR	74HCT86M	.....33	.29	.20		
74HCT86	DIP-14	Quad 2-input exclusive OR gate	246473CR	CD74HCT86E	.....24	.19	.13	45145CR	74HCT86N	.....22	.18	(12)		
74HCT123	SOIC-16	Dual retrigg. monostable multivibrator w/ reset	271951CR	CD74HCT123M	.....32	.27	.22	271960CR	74HCT123M	.....29	.26	.23		
74HCT123	DIP-16	Dual retrigg. monostable multivibrator w/ reset	246481CR	CD74HCT123E	.....30	.246	.239	88049CR	74HCT123N	.....27	.224	.218		
74HCT125	SOIC-14	Quad 3-state bus buffer	271986CR	SN74HCT125D	.....36	.33	.25	271994CR	74HCT125M	.....33	.30	.23		
74HCT125	DIP-14	Quad 3-state bus buffer	246490CR	SN74HCT125N	.....29	.237	.212	243192CR	74HCT125N	.....26	.216	.193		
74HCT138	SOIC-16	3 to 8 decoder/demultiplexer	246385CR	SN74HCT138D	.....29	.25	.21	246051CR	74HCT138M	.....27	.24	.19		
74HCT138	DIP-16	3 to 8 decoder/demultiplexer	246502CR	SN74HCT138N	.....36	.309	.248	44927CR	74HCT138N	.....33	.282	.26		
74HCT139	SOIC-16	2 to 4 decoder/demultiplexer	246289CR	SN74HCT139D	.....27	.228	.212	246271CR	74HCT139M	.....25	.208	.193		
74HCT139	DIP-16	2 to 4 decoder/demultiplexer	246511CR	SN74HCT139N	.....35	.29	.22	63773CR	74HCT139N	.....32	.266	.202		
74HCT154	DIP-24	4 to 16 decoder/demultiplexer	246521CR	CD74HCT154E	.....1.15	.90	.84	88057CR	74HCT154N	.....1.05	.82	.76		
74HCT157	SOIC-16	Quad 2 to 1 data selectors/multiplexers	246300CR	SN74HCT157D	.....45	.39	.294	246297CR	74HCT157M	.....41	.357	.269		
74HCT157	DIP-16	Quad 2 to 1 data selectors/multiplexers	272145CR	SN74HCT157N	.....41	.36	.31	272196CR	74HCT157N	.....31	.26	.20		
74HCT164	SOIC-14	8-bit serial in/parallel out shift register	253016CR	CD74HCT164M	.....34	.291	.267	253024CR	74HCT164M	.....30	.266	.244		
74HCT164	DIP-14	8-bit serial in/parallel out shift register	250819CR	CD74HCT164E	.....39	.33	.294	44978CR	74HCT164N	.....36	.30	.26		
74HCT240	SOIC-20	Octal inverting line driver w/ 3-st. outputs	246351CR	SN74HCT240DW	.....34	.31	.285	246086CR	74HCT240WM	.....31	.29	.26		
74HCT240	DIP-20	Octal inverting line driver w/ 3-st. outputs	250827CR	SN74HCT240N	.....35	.32	.29	45014CR	74HCT240N	.....32	.29	.269		
74HCT244	SOIC-20	Octal driver tri-state	246342CR	SN74HCT244DW	.....43	.33	.25	246094CR	74HCT244WM	.....39	.30	.23		
74HCT244	DIP-20	Octal driver tri-state	250835CR	SN74HCT244N	.....40	.33	.25	45022CR	74HCT244N	.....36	.32	(23)		
74HCT245	SOIC-20	Octal transceiver w/ 3-state outputs	246334CR	SN74HCT245DW	.....34	.282	.248	246107CR	74HCT245WM	.....31	.257	.227		
74HCT245	DIP-20	Octal transceiver w/ 3-state outputs	250843CR	SN74HCT245N	.....42	.33	.25	45031CR	74HCT245N	.....37	.30	(23)		
74HCT273	SOIC-20	Octal D-type flip-flop with clear	246326CR	SN74HCT273DW	.....\$31	.23	.173	.147	246115CR	74HCT273WM	.....\$29	.21	.158	.134
74HCT273	DIP-20	Octal D-type flip-flop with clear	250851CR	SN74HCT273N	.....33	.30	.276	45049CR	74HCT273N	.....\$38	.30	.26	(19)	
74HCT373	SOIC-20	Octal D-type flip-flop w/ 3-state outputs	246140CR	SN74HCT373DW	.....34	.282	.248	246131CR	74HCT373WM	.....31	.257	.227		
74HCT373	DIP-20	Octal D-type flip-flop w/ 3-state outputs	250878CR	SN74HCT373N	.....43	.328	.248	45065CR	74HCT373N	.....39	.299	(227)		
74HCT374	SOIC-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	246166CR	SN74HCT374DW	.....34	.31	.25	246158CR	74HCT374WM	.....31	.29	.23		
74HCT374	DIP-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	250894CR	SN74HCT374N	.....\$37	.26	.218	.21	45073CR	74HCT374N	.....\$34	.24	.20	.193
74HCT393	DIP-14	Dual 4-stage binary counter	250907CR	CD74HCT393E	.....47	.355	.27	243205CR	74HCT393N	.....43	.324	.244		
74HCT540	SOIC-20	Octal 3-state buffer	246182CR	SN74HCT540DW	.....47	.38	.294	246174CR	74HCT540WM	.....43	.374	.266		
74HCT540	DIP-20	Octal 3-state buffer	250915CR	SN74HCT540N	.....50	.38	.294	109778CR	74HCT540N	.....46	.349	.269		
74HCT541	SOIC-20	Octal buffer/line driver w/ 3-state outputs	246203CR	SN74HCT541DW	.....\$41	.32	.282	.248	246191CR	74HCT541WM	.....\$38	.30	.257	.227
74HCT541	DIP-20	Octal buffer/line driver w/ 3-state outputs	250923CR	SN74HCT541N	.....45	.382	.294	99303CR	74HCT541N	.....41	.35	(26)		
74HCT573	SOIC-20	Octal D-type latched flip-flop w/ 3-st. outputs	246211CR	SN74HCT573DW	.....43	.33	.25	246220CR	74HCT573WM	.....39	.30	.23		
74HCT573	DIP-20	Octal D-type latched flip-flop w/ 3-st. outputs	250931CR	SN74HCT573N	.....38	.33	.25	45090CR	74HCT573N	.....35	.30	.23		
74HCT574	SOIC-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	246246CR	SN74HCT574DW	.....38	.33	.25	246238CR	74HCT574WM	.....34	.32	.23		
74HCT574	DIP-20	Octal D-type flip-flop edge-trig. w/ 3-st. outputs	250940CR	SN74HCT574N	.....43	.33	.25	45102CR	74HCT574N	.....39	.30	(23)		
74HCT688	DIP-20	8-bit magnitude comparator	250958CR	CD74HCT688E	.....64	.52	.41	45129CR	74HCT688N	.....58	.49	(37)		

† Note: TI now owns GE, Harris &amp; RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 74FXXX CMOS Logic Competitive Cross Reference Guide

Family	Package	TI	Jameco	Fairchild	Philips
F	DIP	SN74FXXXN	74FXXXN	74FXXXPC	N74FXXXN
	SOIC	SN74FXXXD/DW	74FXXXD	74FXXXSC	N74FXXXD

## 74F Series – General purpose family of high speed advanced bipolar logic



DIP



SOIC



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– Save 6-10%

Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100	Part No.	Cross Ref.	1	10	100
74F00	SOIC-14	Quad 2-input NAND gate	282845CR	SN74F00D	.205	.16	\$.143	287697CR	74F00D	*	\$.141	\$.119
74F00	DIP-14	Quad 2-input NAND gate	281471CR	SN74F00N	.205	.16	.14	286985CR	74F00N	*	.141	.126
74F02	SOIC-14	Quad 2-input NOR gate	282888CR	SN74F02D	.24	.21	.17	287689CR	74F02D	.21	.183	.148
74F02	DIP-14	Quad 2-input NOR gate	281480CR	SN74F02N	.29	.24	.19	286993CR	74F02N	.254	.216	.151
74F04	SOIC-14	Hex inverter	283071CR	SN74F04D	.26	.23	.19	287671CR	74F04D	.23	.199	.168
74F04	DIP-14	Hex inverter	281498CR	SN74F04N	.24	.18	.15	287005CR	74F04N	.21	.158	.119
74F08	SOIC-14	Quad 2-input AND gate	283080CR	SN74F08D	.22	.18	.16	287662CR	74F08D	.20	.158	.143
74F08	DIP-14	Quad 2-input AND gate	281501CR	SN74F08N	.22	.18	.16	287013CR	74F08N	.20	.158	.129
74F14	SOIC-14	Hex inverter w/ schmitt trigger						287654CR	74F14D	.22	.191	.176
74F14	DIP-14	Hex inverter w/ schmitt trigger						287021CR	74F14N	.22	.191	.159
74F20	DIP-14	Dual 4-input NAND gate	281527CR	SN74F20N	.23	.20	.17	287030CR	74F20N	.21	.174	.149
74F30	DIP-14	8-input NAND gate	281535CR	SN74F30N	.47	.40	.285	245121CR	74F30N	.41	.349	.252
74F32	SOIC-14	Quad 2-input OR gate	283098CR	SN74F32D	.27	.24	.20	287638CR	74F32D	.24	.208	.176
74F32	DIP-14	Quad 2-input OR gate	281543CR	SN74F32N	.36	.30	.22	287048CR	74F32N	.20	.183	.16
74F38	SOIC-14	Quad 2-input NAND buffer	281319CR	SN74F38D	.22	.155	.138	283127CR	74F38D	.20	.141	.126
74F38	DIP-14	Quad 2-input NAND buffer	281893CR	SN74F38N	.25	.22	.20	245139CR	74F38N	.22	.191	.176
74F74	SOIC-14	Quad 2-input NAND buffer w/ open collector outputs	283135CR	SN74F74D	.30	.264	.202	287620CR	74F74D	.27	.241	.171
74F74	DIP-14	D-type flip-flop w/ clear	281906CR	SN74F74N	.44	.36	.247	287056CR	74F74N	.39	.315	.199
74F86	SOIC-14	Quad 2-input OR gate	283143CR	SN74F86D	.31	.264	.202	287611CR	74F86D	.28	.241	.185
74F86	DIP-14	Quad 2-input NOR gate	281914CR	SN74F86N	.36	.30	.21	287064CR	74F86N	.32	.266	.185
74F125	SOIC-14	Quad bus buffer gate w/ 3-state outputs	283151CR	SN74F125D	.37	.30	.23	283160CR	74F125D	.33	.266	.202
74F125	DIP-14	Quad bus buffer gate w/ 3-state outputs	281922CR	SN74F125N	.40	.35	.28	245147CR	74F125N	.35	.307	.244
74F132	SOIC-14	Quad 2-input NAND schmitt trigger						283178CR	74F132D	.32	.257	.235
74F138	SOIC-16	3 to 8 decoder/demultiplexer	283186CR	SN74F138D	.34	.27	.25	287566CR	74F138D	.30	.241	.218
74F138	DIP-16	3 to 8 decoder/demultiplexer	281931CR	SN74F138N	.42	.34	.26	287072CR	74F138N	.37	.299	.227
74F139	DIP-16	1 of 4 decoder/demultiplexer						287081CR	74F139N	.26	.216	.189
74F148	SOIC-16	8 to 3 line priority encoder						283194CR	74F148D	.36	.315	.244
74F148	DIP-16	8 to 3 line priority encoder						245163CR	74F148N	.27	.241	.202
74F157	SOIC-16	2 to 1 data selector/multiplexers	283207CR	SN74F157AD	.37	.30	.28	283215CR	74F157AD	.33	.266	.244
74F157	DIP-16	2 to 1 data selector/multiplexers	281949CR	SN74F157AN	.42	.34	.26	245171CR	74F157AN	.37	.299	.227
74F161	SOIC-16	Sync. 4-bit binary counter	283469CR	SN74F161AD	.45	.34	.26	283477CR	74F161AD	.39	.299	.227
74F161	DIP-16	Sync. 4-bit binary counter	281957CR	SN74F161AN	.42	.33	.30	245180CR	74F161AN	.37	.291	.26
74F163	DIP-16	Sync. 4-bit binary counter	281965CR	SN74F163AN	.55	.446	.377	245198CR	74F163AN	.50	.407	.34
74F164	DIP-14	Shift register						245201CR	74F164AN	.40	.299	.269
74F169	SOIC-16	4-bit up/down binary counter	283485CR	SN74F169D	2.19	2.09	1.99	283493CR	74F169D	.68	.56	.52
74F169	DIP-16	4-bit up/down binary counter	281973CR	SN74F169N	.96	.87	.74	245219CR	74F169N	.88	.80	.67
74F174	DIP-16	Hex D-type flip-flop w/ clear	282693CR	SN74F174N	.34	.27	.25	282731CR	74F174N	.30	.241	.218
74F240	SOIC-20	Octal buffer/driver with 3-state outputs	283506CR	SN74F240DW	.43	.328	.248	287558CR	74F240D	.39	.299	.227
74F240	DIP-20	Octal buffer/driver with 3-state outputs	281981CR	SN74F240N	.45	.34	.26	245227CR	74F240N	.39	.299	.227
74F244	SOIC-20	Octal buffer/driver with 3-state outputs	283514CR	SN74F244DW	.52	.46	.36	287540CR	74F244D	.46	.407	.319
74F244	DIP-20	Octal buffer/driver with 3-state outputs	281990CR	SN74F244N	.45	.34	.26	287110CR	74F244N	.39	.299	.198

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- Color: white

22103CR



Part No.	Cross Ref.	Description	1	10	25
22103CR	JTC16	16-pin (for 8, 14 and 16-pin ICs)	\$6.95	\$6.25	\$5.59
22120CR	JTC20	20-pin (for 18 and 20-pin ICs)	8.95	6.50	5.35
22162CR	JTC28	28-pin (for 24 and 28-pin ICs)	10.95	9.95	8.95
22189CR	JTC40	40-pin (for 32 and 40-pin ICs)	11.95	11.35	10.75

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## 74F Series – General purpose family of high speed advanced bipolar logic



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– Save 6-10%

Base No.	Package	Description	Part No.	T.I. Product No.	1	10	100
74F245	SOIC-20	Octal bus transceiver with 3-state outputs	283549CR	SN74F245DW	.45	.34	.26
74F245	DIP-20	Octal bus transceiver with 3-state outputs	282001CR	SN74F245N	.45	.34	.26
74F257	SOIC-16	Quad 2 to 1 data selector/multiplexers w/ 3-st. outputs	283565CR	SN74F257D	.43	.34	.26
74F257	DIP-16	Quad 2 to 1 data selector/multiplexers w/ 3-st. outputs	282044CR	SN74F257N	.34	.28	.26
74F273	DIP-20	Octal D-type flip-flop					
74F299	DIP-20	8-bit shift/storage register w/ 3-state outputs	282052CR	SN74F299N	1.25	1.00	.76
74F373	SOIC-20	Octal transparent D-type latch w/ 3-state outputs	283590CR	SN74F373DW	.44	.355	.267
74F373	DIP-20	Octal transparent D-type latch w/ 3-state outputs	282079CR	SN74F373N	.60	.46	.35
74F374	SOIC-20	Octal edge triggered D-type latch w/ 3-st. outputs	283602CR	SN74F374DW	.43	.33	.25
74F374	DIP-20	Octal edge triggered D-type flip-flop with 3-st. outputs	282600CR	SN74F374N	.40	.31	.257
74F521	SOIC-20	8-bit identity comparator	283670CR	SN74F521DW	.50	.382	.294
74F521	DIP-20	8-bit identity comparator	282802CR	SN74F521N	.78	.66	.53
74F541	SOIC-20	Octal buffer/driver with 3-state outputs	304961CR	SN74F541DW	.72	.55	.41
74F541	DIP-20	Octal buffer/driver with 3-state outputs	282765CR	SN74F541N	.74	.56	.43
74F543	SOIC-24	Octal reg. Transceiver w/ 3-state outputs	283611CR	SN74F543DW	.95	.80	.62
74F543	DIP-24	Octal reg. Transceiver w/ 3-state outputs					
74F573	SOIC-20	Octal reg. Latch w/ 3-state outputs	283637CR	SN74F573DW	.43	.328	.248
74F573	DIP-20	Octal reg. Latch w/ 3-state outputs	282642CR	SN74F573N	.43	.328	.248
74F574	SOIC-20	D-type flip-flop with 3-state outputs	283645CR	SN74F574DW	.43	.328	.304
74F574	DIP-20	D-type flip-flop with 3-state outputs	282669CR	SN74F574N	.45	.34	.257
74F579	DIP-20	8-bit bidirectional counter					

## Major Brands – Save up to 20%

Part No.	Cross Ref.	1	10	100
287531CR	74F245D	\$.39	\$.299	\$.227
287144CR	74F245N	.53	.402	.302
283557CR	74F257D	.38	.299	.227
245235CR	74F257N	.30	.249	.244
287099CR	74F273N	.48	.415	.319
2871463CR	74F299N	1.15	.93	.71
287494CR	74F373D	.40	.324	.244
287161CR	74F373N	.45	.398	.302
287486CR	74F374D	.39	.299	.227
287187CR	74F374N	.35	.274	.23
283696CR	74F521D	.46	.349	.269
282811CR	74F521N	.69	.58	.47
283653CR	74F541D	.66	.498	.378
282773CR	74F541N	.66	.498	.378
283629CR	74F543D	.86	.73	.59
245251CR	74F543N	.83	.70	.56
287478CR	74F573D	.39	.299	.198
287195CR	74F573N	.39	.299	.199
287460CR	74F574D	.39	.299	.198
287216CR	74F574N	.39	.299	.198
245260CR	74F579N	2.35	1.89	1.49

<sup>†</sup> Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

## 74LS Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
46252CR	74LS00N**	DIP-14	Quad 2-input NAND gate	\$.29	\$.27	\$.24
198361CR	74LS00M	SOIC-14	Quad 2-input NAND gate	.25	.21	.16
46287CR	74LS02N**	DIP-14	Quad 2-input NOR gate	.29	.25	.21
198379CR	74LS02M	SOIC-14	Quad 2-input NOR gate	.27	.23	.17
46308CR	74LS03N	DIP-14	Quad 2-input NAND gate (O.C.)	.41	.33	.25
46316CR	74LS04N**	DIP-14	Hex inverter	.29	.26	.23
198387CR	74LS04M	SOIC-14	Hex inverter	.27	.23	.17
46341CR	74LS05N*	DIP-14	Hex inverter (O.C.)	.41	.33	.25
198395CR	74LS05M	SOIC-14	Hex inverter (O.C.)	.41	.33	.252
46359CR	74LS06N	DIP-14	Hex inverter buffer/driver (O.C.)	.64	.61	.50
46367CR	74LS07N	DIP-14	Hex buffer/driver (O.C. hi-voltage)	.55	.47	.35
198408CR	74LS07M	SOIC-14	Hex buffer/driver (O.C. hi-voltage)	.64	.54	.41
46375CR	74LS08N**	DIP-14	Quad 2-input AND gate	.36	.31	.22
198416CR	74LS08M	SOIC-14	Quad 2-input AND gate	.41	.33	.25
46391CR	74LS09N	DIP-14	Quad 2-input AND gate (O.C.)	.36	.28	.19
46404CR	74LS10N*	DIP-14	Triple 3-input NAND gate	.30	.20	.15
198424CR	74LS10M	SOIC-14	Triple 3-input NAND gate	.45	.383	.287
46439CR	74LS11N*	DIP-14	Triple 3-input AND gate	.41	.31	.21
198432CR	74LS11M	SOIC-14	Triple 3-input AND gate	.41	.33	.25
46640CR	74LS14N*	DIP-14	Hex inverter Schmitt trigger	.29	.25	.18
198441CR	74LS14M	SOIC-14	Hex inverter Schmitt trigger	.37	.24	.19
47095CR	74LS20N*	DIP-14	Dual 4-input NAND gate	.28	.21	.19
198459CR	74LS20M	SOIC-14	Dual 4-input NAND gate	.51	.44	.32
47108CR	74LS21N	DIP-14	Dual 4-input AND gate	.22	.19	.16
47378CR	74LS27N	DIP-14	Triple 3-input NOR gate	.29	.25	.19
47458CR	74LS30N*	DIP-14	8-input NAND gate	.38	.33	.25
198467CR	74LS30M	SOIC-14	8-input NAND gate	.51	.438	.325
47466CR	74LS32N**	DIP-14	Quad 2-input OR gate	.29	.26	.23
198475CR	74LS32M	SOIC-14	Quad 2-input OR gate	.41	.30	.24
47597CR	74LS37N	DIP-14	Quad 2-input NAND gate buffer	.54	.46	.34
47693CR	74LS38N	DIP-14	Quad 2-input NAND gate buffer (O.C.)	\$.29	.26	.221

\*10 pcs. in 74LS series IC cabinet kit, pg 23

\*\*20 pcs. in 74LS series IC cabinet kit, pg 23

## 74LS Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
47773CR	74LS42N	DIP-16	BCD-to-decimal decoder/driver	\$.69	\$.59	\$.49
47790CR	74LS47N*	DIP-16	BCD to 7-seg. decoder/driver (O.C.)	.72	.52	.45
47811CR	74LS48N	DIP-16	BCD to 7-seg. decoder/driver	4.99	4.24	3.18
47992CR	74LS73N*	DIP-14	Dual JK flip-flop with clear	.32	.27	.19
48004CR	74LS74N**	DIP-14	Dual D flip-flop	.29	.25	.22
198491CR	74LS74M	SOIC-14	Dual D flip-flop	.34	.29	.22
48021CR	74LS75N*	DIP-16	4-bit bi-stable latch	.86	.73	.55
198504CR	74LS75M	SOIC-16	4-bit bi-stable latch	.68	.57	.41
48039CR	74LS76N	DIP-16	Dual JK flip-flop with preset and clear	.69	.62	.55
48063CR	74LS83N	DIP-16	4-bit binary full adder	.99	.89	.79
48071CR	74LS85N*	DIP-16	4-bit magnitude comparator	.43	.33	.29
198512CR	74LS85M	SOIC-16	4-bit magnitude comparator	.70	.60	.45
48098CR	74LS86N*	DIP-14	Quad EXCLUSIVE-OR gate	.35	.30	.22
198521CR	74LS86M	SOIC-14	Quad EXCLUSIVE-OR gate	.41	.33	.25
48119CR	74LS90N*	DIP-14	Decade counter	.49	.45	.39
198539CR	74LS90M	SOIC-14	Decade counter	.82	.61	.45
48143CR	74LS92N	DIP-14	Divide-by-12 counter	.70	.61	.55
48151CR	74LS93N*	DIP-14	4-bit binary counter	.89	.79	.70
198547CR	74LS93M	SOIC-14	4-bit binary counter	\$.99	.66	.56
48178CR	74LS95N	DIP-14	4-bit parallel-access shift register	1.05	.91	.79
46412CR	74LS107N	DIP-14	Dual JK flip-flop with clear	.56	.41	.29
46421CR	74LS109N	DIP-16	Dual JK pos. edge-trig. flip-flop	.41	.32	.22
46447CR	74LS112N	DIP-16	Dual JK neg. edge-trig. flip-flop	.41	.35	.26
46471CR	74LS122N	DIP-14	Retrig. mono. multivibrator	.46	.35	.27
46480CR	74LS123N*	DIP-16	Dual mono. multivibrator with clear	.45	.35	.27
198555CR	74LS123M	SOIC-16	Dual mono. multivibrator with clear	.46	.35	.27
46501CR	74LS125N*	DIP-16	Quad bus buffer neg. enable tri-state	.46	.35	.27
243168CR	74LS125AM	SOIC-14	Quad 3-state buffer	.46	.35	.27
46527CR	74LS126N	DIP-14	Quad bus buffer tri-state	.32	.30	.22
46551CR	74LS132N	DIP-14	Quad 2-input NAND Schmitt trigger	.53	.40	.28
46586CR	74LS136N	DIP-14	Quad EXCLUSIVE-OR gate (O.C.)	.53	.40	.30

\*10 pcs. in 74LS series IC cabinet kit, pg 23

\*\*20 pcs. in 74LS series IC cabinet kit, pg 23

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 74LS Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
46607CR	74LS138N*	DIP-16	3 to 8 decoder/demultiplexer	.38	.35	.26
198563CR	74LS138M	SOIC-16	3 to 8 decoder/demultiplexer	<del>\$.66</del> .46	.39	<del>.29</del>
46623CR	74LS139N*	DIP-16	2 to 4 decoder/demultiplexer	.41	.35	.26
46666CR	74LS145N	DIP-16	BCD-to-decimal decoder/driver	<del>\$.49</del> .42	.37	.33
46682CR	74LS148N	DIP-16	8 to 3 priority encoder	.79	.68	.55
46703CR	74LS151N*	DIP-16	8-input multiplexer	.39	.35	.31
198571CR	74LS151M	SOIC-16	8-input multiplexer	.31	.26	<del>.20</del>
46720CR	74LS153N	DIP-16	Dual 4-to-1 selector/multiplexer	.41	.36	<del>.27</del>
46738CR	74LS154N	DIP-24	4 to 16 line decoder/demultiplexer	5.15	4.59	3.69
46754CR	74LS155N*	DIP-16	Dual 2/4 demultiplexer	.56	.47	<del>.38</del>
46762CR	74LS156N	DIP-16	Dual 2/4 demultiplexer (O.C.)	.30	.25	<del>.187</del>
46771CR	74LS157N*	DIP-16	Dual 2/1 data selector	.36	.31	<del>.23</del>
198580CR	74LS157M	SOIC-16	Quad 2/1 data selector	.30	.26	<del>.19</del>
46800CR	74LS160N	DIP-16	Decade counter with asynch. clear	2.19	2.15	2.09
46818CR	74LS161N	DIP-16	Synch 4-bit counter	.51	.44	<del>.32</del>
46842CR	74LS163N	DIP-16	Fully synch. 4-bit counter	.51	.41	<del>.32</del>
46851CR	74LS164N	DIP-14	8-bit serial shift register	.43	.36	.27
46877CR	74LS165N	DIP-16	8-bit serial shift register, parallel load	.56	.45	<del>.34</del>
46885CR	74LS166N	DIP-16	8-bit shift register, parallel load	<del>.38</del>	<del>.32</del>	<del>.24</del>
46906CR	74LS169N	DIP-16	Synch. binary up/down counter	.61	.47	.35
46922CR	74LS173N	DIP-16	4-bit D-type reg. tri-state	1.15	1.09	1.02
46931CR	74LS174N*	DIP-16	Hex D flip-flop with clear	.34	.29	.27
46957CR	74LS175N*	DIP-16	Quad D flip-flop with clear	.40	.31	.23
46973CR	74LS181N	DIP-24	Arithmetic logic unit/function generator	1.56	1.31	.89
46990CR	74LS190N	DIP-16	Synchronous up/down counter	1.71	1.54	1.37
47001CR	74LS191N	DIP-16	Up/down binary counter	.53	.44	.36
47010CR	74LS192N	DIP-16	Decade up/down counter with clear	3.95	3.59	3.25
47036CR	74LS193N*	DIP-16	Binary up/down counter with clear	.59	.49	.45
198598CR	74LS193M	SOIC-16	Binary up/down counter with clear	<del>.87</del>	<del>.74</del>	<del>.55</del>
47052CR	74LS194N	DIP-16	4-bit bi-directional shift register	.68	.56	.50
47061CR	74LS195N	DIP-16	4-bit parallel-access shift register	.56	.46	<del>.32</del>
47124CR	74LS221N	DIP-16	Dual mono. multivibrator Schmitt trigger	.49	.44	.36
243176CR	74LS221M	SOIC-16	Dual monostable multivibrator	.72	.55	.42
47141CR	74LS240N*	DIP-20	Octal invert. line driver tri-state	.39	.30	<del>.23</del>
198619CR	74LS240M	SOIC-20	Octal invert. line driver tri-state	.53	.40	<del>.30</del>
47167CR	74LS241N	DIP-20	Octal bus/line driver tri-state	.36	.31	<del>.23</del>
47183CR	74LS244N*	DIP-20	Octal driver tri-state	.44	.37	<del>.28</del>
198627CR	74LS244M	SOIC-20	Octal driver tri-state	<del>.44</del>	<del>.37</del>	<del>.28</del>
47212CR	74LS245N*	DIP-20	Octal bus transceiver tri-state	.45	.39	.35
198635CR	74LS245M	SOIC-20	Octal bus transceiver tri-state	.44	.37	<del>.28</del>
47247CR	74LS247N	DIP-16	BCD to 7-segment decoder/driver (O.C.)	.94	.80	.62
47271CR	74LS251N	DIP-16	8-channel multiplexer tri-state	.53	.44	<del>.33</del>
47298CR	74LS257N	DIP-16	Quad 2-input multiplexer tri-state	.30	.26	.23
47327CR	74LS259N	DIP-16	8-bit addressable latch	.49	.41	.31
47360CR	74LS266N	DIP-14	Quad EXCLUSIVE-NOR gate (O.C.)	.56	.41	.36
47386CR	74LS273N*	DIP-20	Octal D-type flip-flop with clear	.39	.31	.24
198643CR	74LS273M	SOIC-20	Octal D-type flip-flop with clear	.70	.60	<del>.45</del>
47407CR	74LS279N	DIP-16	Quad set-reset latches	.49	.41	<del>.31</del>
47423CR	74LS283N	DIP-16	4-bit binary full add with fast carry	.45	.34	<del>.24</del>
47440CR	74LS299N	DIP-20	8-bit universal shift/storage register	1.05	.88	<del>.64</del>
47546CR	74LS365N	DIP-16	Hex buffer with logical OR tri-state	.69	.62	.47
47562CR	74LS367N	DIP-16	Hex buffer tri-state	.52	.44	.32
47600CR	74LS373N*	DIP-20	Octal D flip-flop tri-state	.45	.39	.35
198651CR	74LS373M	SOIC-20	Octal D flip-flop tri-state	.51	.38	.30
47634CR	74LS374N*	DIP-20	Octal D F/F edge-trig tri-state	.45	.39	.34
198660CR	74LS374M	SOIC-20	Octal D F/F edge-trig tri-state	.53	.39	<del>.30</del>
47669CR	74LS377N	DIP-20	Octal D register common enable	.24	.16	.12
47722CR	74LS390N	DIP-16	Dual 4-bit decade counter	.69	.59	.44
47731CR	74LS393N	DIP-14	Dual 4-bit binary counter	.52	.45	<del>.35</del>
243184CR	74LS393M	SOIC-16	Dual 4-bit binary counter	.79	.60	.45
47861CR	74LS540N	DIP-20	Octal invert. buffer/line driver tri-state	.89	.74	.65
47870CR	74LS541N	DIP-20	Octal buffer/line driver tri-state	<del>\$.69</del> .46	.39	<del>.29</del>
64418CR	74LS573N	DIP-20	Octal D-type F/F latch tri-state	2.06	1.81	1.23
64426CR	74LS574N	DIP-20	Octal D-type F/F edge-trig. tri-state	2.11	1.81	1.36
47909CR	74LS590N	DIP-16	8-bit binary counter w/o reg. tri-state	<del>5.25</del> 4.46	<del>4.46</del>	<del>3.35</del>
103974CR	74LS595N	DIP-16	8-bit serial-to-parallel shift reg. tri-state	4.49	3.65	3.15

\*10 pcs. in 74LS series IC cabinet kit, right

\*\*20 pcs. in 74LS series IC cabinet kit, right

## 74LS Series (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
47950CR	74LS645N	DIP-20	Octal bus transceiver tri-state	<del>\$1.15</del>	<del>\$.96</del>	<del>\$.77</del>
47984CR	74LS688N	DIP-20	8-bit magnitude comparator	.88	.75	<del>.56</del>

## 74ALS Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
245294CR	74ALS00AN	DIP-14	Quad 2-input NAND gate	<del>\$.39</del>	<del>\$.30</del>	<del>\$.23</del>
43959CR	74ALS02N	DIP-14	Quad 2-input NOR gate	.30	.27	.22
245307CR	74ALS04BN	DIP-14	Hex inverters	.38	.33	.23
245286CR	74ALS05AN	DIP-14	Hex inverters w/ open collector outputs	.38	.33	.23
43983CR	74ALS08N	DIP-14	Quad 2-input AND gate	<del>\$.37</del> .28	<del>.25</del>	<del>.21</del>
245315CR	74ALS10AN	DIP-14	Triple 3-input NAND gate	.31	.30	.28
245323CR	74ALS11AN	DIP-14	Triple 3-input AND gate	.43	.38	.28
63503CR	74ALS27N	DIP-14	Triple 3-input NOR gate	.26	.24	.23
245796CR	74ALS30AN	DIP-14	8-input NAND gate	<del>.39</del>	<del>.30</del>	<del>.23</del>
44134CR	74ALS32N	DIP-14	Quad 2-input OR gate	.40	.32	.23
245892CR	74ALS74AN	DIP-14	Dual D-pos. edge trig. flip-flops w/ preset & clear	.39	.30	.23
44214CR	74ALS86N	DIP-14	Quad 2-input exclusive OR gate	.40	.32	.23
245754CR	74ALS151N	DIP-16	1 of 8 line data selector/multiplexer	.48	.37	.29
245753CR	74ALS240AN	DIP-20	Octal 3-state bus driver	.49	.38	.29
245761CR	74ALS244AN	DIP-20	Octal 3-state bus driver	<del>\$.56</del> .53	<del>.41</del>	<del>.30</del>
245770CR	74ALS245AN	DIP-20	Octal 3-state bus transceiver	.45	.35	.27
44100CR	74ALS251N	DIP-16	3-st. 1 of 8 line data selector/multiplexer	.59	.53	.41
245788CR	74ALS258N	DIP-20	3-st. quad 1 of 2 line data selector/multip. (inverting)	<del>.67</del>	<del>.51</del>	<del>.39</del>
44118CR	74ALS273N	DIP-20	Octal D-type edge trig. flip-flops w/ clear inputs	.79	.60	.45
44142CR	74ALS373N	DIP-20	Octal D-type 3-st. transparent latches	.64	.49	.37
245809CR	74ALS374AN	DIP-20	Octal 3-st. D-type edge trig. flip-flops	.49	.38	.29
245817CR	74ALS520N	DIP-20	8-bit comparator	1.12	.95	.76
245825CR	74ALS521N	DIP-20	8-bit comparator	1.37	1.16	.82
245833CR	74ALS533N	DIP-20	Octal D-type transparent latches w/ 3-st. outputs	1.21	1.02	.73
245841CR	74ALS540N	DIP-20	Octal inverting buffers & line driv. w/ 3-st. outputs	.80	.67	.54
245850CR	74ALS541N	DIP-20	Octal buffers & line drivers w/ 3-st. outputs	.79	.67	.55
245868CR	74ALS573BN	DIP-20	Octal D-type transp. latch w/ 3-st. outputs	.43	.36	.29
245876CR	74ALS574AN	DIP-20	Octal D-type edge trig. flip-flops w/ 3-st. outputs	.43	.39	.36
245884CR	74ALS645AN	DIP-20	Octal bus transceivers	<del>.98</del>	<del>.83</del>	<del>.67</del>

\*10 pcs. in 74LS series IC cabinet kit, below

## 7400 Series IC Kit

SAVE \$89

## Includes:

20-drawer component cabinet (81701CR),  
20 clear plastic drawers (85454CR),  
20 clear dividers (85446CR), pg 120 and  
30 adhesive labels for drawers to identify parts in kit

10 each: 7402, 7405, 7408, 7410, 7414, 7416, 7417, 7420,  
7430, 7432, 7438, 7447, 7470, 7485, 7495, 74107,  
74123, 74132, 74151, 74153, 74157, 74160, 74174, 74175, 74279  
20 each: 7400, 7404, 7406, 7407, 7474

Part No.	Description	Wt. (lbs.)	1	10
84953CR	350 pcs. 7400 IC kit	6.2	<del>\$149.95</del>	<del>\$134.95</del>



## 74LS Series IC Kit

SAVE \$52

## Includes:

20-drawer component cabinet (81701CR),  
20 clear plastic drawers (85454CR),  
20 clear dividers (85446CR), pg 120 and  
30 adhesive labels for drawers to identify parts in kit

10 each: 74LS05, 74LS10, 74LS11, 74LS14, 74LS20, 74LS30,  
74LS47, 74LS73, 74LS75, 74LS85, 74LS86, 74LS90  
74LS93, 74LS123, 74LS125, 74LS139, 74LS151, 74LS155, 74LS157, 74LS174,  
74LS175, 74LS193, 74LS240, 74LS244, 74LS245, 74LS273, 74LS373, 74LS374  
20 each: 74LS00, 74LS02, 74LS04, 74LS08, 74LS32, 74LS74, 74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961CR	420 pcs. 74LS IC kit	6.7	<del>\$119.95</del>	<del>\$107.95</del>
130391CR	Refill for 84961CR (420 pcs.)	2.0	<del>99.99</del>	<del>89.99</del>



## 30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 239.



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## 4000 Series (Continued)

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
12562CR	CD4001N**	DIP-14	Quad 2-input NOR gate .....	\$ .29	\$ .24	\$ .19
197261CR	CD4001M	SOIC-14	Quad 2-input NOR gate .....	.28	.23	.18
12597CR	CD4007N	DIP-14	Dual comp. pair with inverter .....	.29	.25	.22
12634CR	CD4011N**	DIP-14	Quad 2-input NAND gate .....	.29	.24	.19
197270CR	CD4011M	SOIC-14	Quad 2-input NAND gate .....	.23	.22	.14
12677CR	CD4013N**	DIP-14	Dual D flip-flop with set/reset .....	.35	.25	.22
197288CR	CD4013M	SOIC-14	Dual D flip-flop with set/reset .....	.30	.26	.195
12706CR	CD4015N*	DIP-16	Dual 4-stage static shift register .....	.45	.37	.28
12722CR	CD4016N*	DIP-14	Quad bilateral switch .....	.28	.24	.18
12749CR	CD4017N*	DIP-16	Decade counter/divider .....	.39	.35	.31
197296CR	CD4017M	SOIC-16	Decade counter/divider .....	.56	.45	.33
12773CR	CD4018N	DIP-16	Presetable divide-by-N counter .....	.30	.25	.23
12802CR	CD4020N*	DIP-16	14-stage binary/ripple counter .....	.49	.39	.29
197309CR	CD4020M	SOIC-16	14-stage binary/ripple counter .....	.62	.49	.36
12829CR	CD4021N	DIP-16	8-stage static shift register .....	.40	.34	.23
54666CR	CD4022N	DIP-16	Div. by 8-cntr./driver w/ 8-decoded outputs .....	.32	.27	.203
12845CR	CD4023N*	DIP-14	Triple 3-input NAND gate .....	.28	.23	.16
12853CR	CD4024N*	DIP-14	7-stage binary counter .....	.32	.27	.18
12888CR	CD4027N*	DIP-16	Dual JK master-slave flip-flop .....	\$ .32	.27	.16
197317CR	CD4027M	SOIC-16	Dual JK master-slave flip-flop .....	.41	.35	.26
12909CR	CD4028N	DIP-16	BCD-to-decimal decoder .....	.29	.22	.19
12925CR	CD4029N	DIP-16	Presetable up/down counter .....	.32	.27	.18
197325CR	CD4029M	SOIC-16	Presetable up/down counter .....	.40	.34	.26
12950CR	CD4040N*	DIP-16	12-stage binary/ripple counter .....	.32	.27	.18
197333CR	CD4040M	SOIC-16	12-stage binary/ripple counter .....	.56	.47	.34
12984CR	CD4042N	DIP-16	Quad clocked D latch .....	.25	.213	.159
12992CR	CD4043N	DIP-16	Quad NOR R-S latch tri-state .....	.31	.26	.20
13004CR	CD4044N	DIP-16	Quad 3-state NAND R-S latch tri-state .....	.33	.28	.21
13012CR	CD4046N*	DIP-16	Micropower phase-locked loop .....	\$ .43	.30	.23
13039CR	CD4047N	DIP-14	Monostable/astable multivibrator .....	.30	.25	.22
13055CR	CD4049N**	DIP-16	Hex/buffer/converter (inverting) .....	.29	.24	.21
197341CR	CD4049M	SOIC-16	Hex/buffer/converter (inverting) .....	.33	.28	.21
13071CR	CD4050N*	DIP-16	Hex/buffer/converter (N-inverting) .....	.25	.21	.19
197350CR	CD4050M	SOIC-16	Hex/buffer/converter (N-inverting) .....	.38	.30	.23
13098CR	CD4051N*	DIP-16	Single 8-channel multi./demultiplexer .....	.45	.39	.35
197368CR	CD4051M	SOIC-16	Single 8-channel multi./demultiplexer .....	.30	.255	.191
13119CR	CD4052N	DIP-16	Diff. 4-channel multi./demultiplexer .....	.30	.24	.17
13127CR	CD4053N	DIP-16	Triple 2-channel multi./demultiplexer .....	.41	.34	.25
13151CR	CD4060N	DIP-16	14-stage ripple-carry binary .....	.41	.33	.25
13186CR	CD4066N**	DIP-14	Quad bilateral switch .....	.35	.25	.19
197376CR	CD4066M	SOIC-14	Quad bilateral switch .....	.27	.20	.13
13215CR	CD4067N	DIP-24	16-channel analog multi./demultiplexer .....	.74	.63	.47
13231CR	CD4069N*	DIP-14	Hex inverter (74C04) .....	.30	.24	.17
197384CR	CD4069M	SOIC-14	Hex inverter (74C04) .....	.29	.21	.14
13258CR	CD4070N*	DIP-14	Quad EXCLUSIVE-OR gate (74C86) .....	.28	.24	.17
87847CR	CD4070M	SOIC-14	Quad EXCLUSIVE-OR gate .....	.28	.28	.28
13274CR	CD4071N*	DIP-14	Quad 2-input OR gate .....	.28	.238	.179
197392CR	CD4071M	SOIC-14	Quad 2-input OR gate .....	.30	.24	.17
13354CR	CD4081N*	DIP-14	Quad 2-input AND gate .....	.28	.26	.24
197405CR	CD4081M	SOIC-14	Quad 2-input AND gate .....	.35	.30	.22
13400CR	CD4093N*	DIP-14	Quad 2-input NAND Schmitt trigger .....	.29	.25	.19
197413CR	CD4093M	SOIC-14	Quad 2-input NAND Schmitt trigger .....	.30	.26	.19
13426CR	CD4094N	DIP-16	8-stage shift-and-store bus register .....	.41	.33	.25
13434CR	CD4098N	DIP-16	CMOS/MOS dual mono. multivibrator .....	\$ .48	.38	.24
13442CR	CD4099N	DIP-16	8-bit addressable latch .....	.30	.26	.19
13469CR	CD4503N	DIP-16	Tri-state hex buffer (74C367) 80C97 .....	.28	.24	.18
13485CR	CD4510N	DIP-16	BCD up/down counter .....	\$ .69	.39	.23
13493CR	CD4511N*	DIP-16	BCD to 7-seg. latch/decoder/driver .....	.69	.59	.49
197421CR	CD4511M	SOIC-16	BCD to 7-seg. latch/decoder/driver .....	.44	.37	.28
13514CR	CD4512N	DIP-16	8-channel data selector .....	\$ .69	.34	.27
13522CR	CD4514N	DIP-24	4-bit latch/4-16 line decoder .....	.89	.76	.57
13549CR	CD4516N	DIP-16	Binary up/down counter .....	\$ .64	.50	.40
13565CR	CD4518N	DIP-16	Dual BCD up counter .....	\$ .49	.26	.23
13581CR	CD4520N	DIP-16	Dual binary up counter .....	\$ .45	.33	.28
13590CR	CD4522N	DIP-16	Program. BCD divide-by-N counter .....	.89	.80	.71
13602CR	CD4526N	DIP-16	Divide-by-N counter (binary) .....	\$ .55	.34	.25
13611CR	CD4528N	DIP-16	Dual monostable multivibrator .....	.86	.73	.55

## 4000 Series (Continued)

DIP  SOIC 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
13653CR	CD4538N*	DIP-16	Dual precision monostable multivibrator ..	\$ .59	\$ .49	\$ .34
197430CR	CD4538M	SOIC-16	Dual precision monostable multivibrator ....	.57	.44	.34
13688CR	CD4541N	DIP-14	Oscillator/programmable timer .....	\$ .39	.25	.17
13696CR	CD4543N*	DIP-16	BCD to 7-segment decoder (LCD) .....	.59	.45	.29
13709CR	CD4553N	DIP-16	3-digit BCD counter .....	2.95	2.75	2.49
13768CR	CD4584N*	DIP-14	Hex Schmitt trigger (74C14) 40106 .....	.39	.35	.29
197448CR	CD4584M	SOIC-14	Hex Schmitt trigger (74C14) 40106 .....	.30	.28	.27
44257CR	CD40106N	DIP-14	Hex inverter Schmitt trigger (74C14) .....	.40	.34	.23

\*10 pcs. in 4000 series IC cabinet kit, below \*\*20 pcs. in 4000 series IC cabinet kit, below

## 4000 Series CMOS IC Kit

Includes:

- 20-drawer component cabinet (81701CR),
- 20 clear plastic drawers (85454CR),
- 20 clear dividers (85446CR), pg 120 and
- 30 adhesive labels for drawers to identify parts in kit

SAVE \$26

84970CR



10 each: CD4015, CD4016, CD4017, CD4020, CD4023, CD4024, CD4027, CD4040, CD4046, CD4050, CD4051, CD4069, CD4070, CD4071, CD4081, CD4093, CD4511, CD4538, CD4543, CD4584

20 each: CD4001, CD4011, CD4013, CD4049, CD4056

Part No.	Description	Wt. (lbs.)	1	10
84970CR	300 pcs. 4000 series CMOS IC kit	6.1	\$79.95	\$71.95
130403CR	Refill for 84970CR (300 pcs.)	1.4	58.95	52.95

## 74C Series

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
44222CR	74C00N	DIP-14	Quad 2-input NAND gate .....	\$1.05	\$ .89	\$ .67
44231CR	74C04N	DIP-14	Hex inverter (CD4069) .....	1.05	.89	.67
44257CR	74C14N	DIP-14	Hex inverter Schmitt trigger (CD40106) .....	.40	.34	.23
44441CR	74C74N	DIP-14	Dual D flip-flop .....	1.69	1.44	1.08
44361CR	74C221N	DIP-16	Dual monostable multivibrator .....	3.69	3.19	2.50
13469CR	74C367N	DIP-16	Hex buffer tri-state (80C97/CD4503) .....	.28	.24	.18
44396CR	74C373N	DIP-20	Octal D-type flip-flop with clear tri-state ...	3.85	3.11	2.44
44409CR	74C374N	DIP-20	Octal D-type flip-flop tri-st. (INS82C06N) ..	2.15	1.83	1.37
44564CR	74C922N	DIP-18	16-key keyboard encoder (INS8245N) .....	6.29	5.05	4.26
44572CR	74C923N	DIP-20	20-key keyboard encoder (INS8246N) .....	5.99	5.09	3.82
44581CR	74C925N	DIP-16	4-digit CTR w/ MUX D segment driver .....	10.05	8.55	6.39
44599CR	74C926N	DIP-18	4-digit CTR w/ MUX D segment driver .....	8.69	7.85	7.09

## 74S Series

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
48531CR	74S188N	DIP-16	256-bit (32 x 8) PROM O.C. (27S18) .....	\$4.39	\$3.95	\$3.45
48557CR	74S189N	DIP-16	64-bit (16 x 4) RAM tri-state (27S03) .....	3.99	3.90	3.86
48696CR	74S287N	DIP-16	1k-bit (256 x 4) PROM tri-state (TBP24S10) ..	8.95	7.85	7.09
48717CR	74S288N	DIP-16	256-bit (32 x 8) PROM tri-st. (TBP18S030N) ..	7.39	6.39	5.49
48805CR	74S387N	DIP-16	1k-bit (256 x 4) PROM O.C. (TBP24SA10N) ...	3.10	3.05	3.00
52513CR	74S428N	DIP-28	System contr./bus driver (8228) .....	3.69	3.19	2.36
48864CR	74S472N	DIP-20	4k-bit (512 x 8) PROM tri-st. (TBP28S42N) ..	12.95	11.65	10.49
48910CR	74S571N	DIP-16	2k-bit (512 x 4) PROM tri-st. (AM27S13) .....	5.69	5.49	5.29
48928CR	74S573N	DIP-18	4k-bit (1024 x 4) PROM tri-st. (53S441J) ....	3.39	2.89	2.59

## 9000 Series

DIP 

Part No.	Cross Ref.	Pkg.	Description	1	10	100
53663CR	9368	DIP-16	7 segment driver/latch .....	\$4.49	\$3.95	\$3.55
10567CR	AM9513APC	DIP-40	System timing counter .....	39.95	35.95	31.85

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Dallas Semiconductor



Part No.	Product No.	Pkg.	Description	1	10	100
114198CR	DS1210	DIP-8	Nonvolatile controller chip .....	\$4.45	\$3.35	\$2.89
114219CR	DS1213C	DIP-28	SmartSocket 64K/256k .....	19.99	15.55	11.35
133410CR	DS1216C	DIP-28	Smartwatch/RAM 64K/256k .....	31.85	27.69	19.99
114331CR	DS1232	DIP-8	Micromonitor chip .....	1.89	1.42	1.25
133444CR	DS1286	DIP-28	Watchdog timekeeper (50-Byte RAM) ....	23.95	18.25	12.70
76646CR	DS1287	DIP-24	Real time clock with RAM (MC146818A) ..	7.25	6.15	4.59
176778CR	DS1302	DIP-8	Trickle charge time keeping IC .....	2.49	2.25	2.05
114374CR	DS1387	DIP-24	RAMified real time clock 4k x 8 .....	8.59	7.99	7.25
114382CR	DS1620	DIP-8	Digital thermometer and thermostat .....	6.29	5.05	3.49
245500CR	DS1705ESA	SOIC-8	3.3V and 5V micromonitor .....	2.05	1.56	1.09
282749CR	DS1708ESA	SOIC-8	3.3V and 5V micromonitor .....	2.05	1.56	1.21
133452CR	DS12887	DIP-24	Real time clock chip .....	8.15	6.25	3.99
299997CR	DS12887A	DIP-24	Real time clock chip .....	8.19	6.99	6.69
114403CR	DS80C320-MCG	DIP-40	High speed micro 25MHz .....	12.99	10.29	6.25

## MPU Supervisory



Part No.	Cross Ref.	Pkg.	Description	1	10	100
106219CR	MAX690CPA	DIP-8	Microprocessor watchdog/battery .....	\$6.15	\$5.55	\$3.85
106227CR	MAX691CPE	DIP-16	Microprocessor watchdog/battery .....	5.75	4.89	3.67
288403CR	MAX693CPE	DIP-16	Microprocessor watchdog/battery .....	6.49	3.86	3.22
297684CR	MAX694CPA	DIP-8	Microprocessor supervisory circuit .....	6.59	3.86	3.26
297748CR	MAX695CPE	DIP-16	Low cost MPU supervisory circuit .....	7.15	5.82	5.24
243627CR	MAX705CPA	DIP-8	MPU supervisory circuit .....	4.91	3.79	3.35
243635CR	MAX705CSA	SOIC-8	Low cost MPU supervisory circuit .....	4.91	3.79	3.35
297705CR	MAX706CPA	DIP-8	Low cost MPU supervisory circuit .....	4.99	3.99	3.59
251774CR	MAX707CPA	DIP-8	Low cost MPU supervisory circuit .....	4.45	3.40	2.20
251758CR	MAX707CSA	SOIC-8	Low cost MPU supervisory circuit .....	6.38	5.74	5.17
291670CR	MAX712CPE	DIP-16	NiCd/NiMH battery fast charge controller ..	6.99	5.59	5.03
298020CR	MAX734CPA	DIP-8	12V, 120mA flash memory prog. supply ..	3.69	3.49	3.32
298046CR	MAX734CSA	SOIC-8	12V, 120mA flash memory prog. supply ..	4.59	2.93	2.28
266861CR	MAX8097	SOT-23	3-pin microprocessor reset circuit .....	.66	.57	.43
245391CR	MAX810S	SOT-23	3-pin microprocessor reset circuit .....	.91	.82	.74
245497CR	MAX813CSA	SOIC-8	Low cost MPU supervisory circuit .....	3.15	2.41	2.25
106260CR	MAX1232CPA	DIP-8	Microprocessor monitor .....	2.75	2.25	1.69
282627CR	DS1233-5	SOT-223	5V econoreset, CPU supervisory .....	1.25	.91	.74
290221CR	DS1233D-5	TO-92	5V econoreset, CPU supervisory .....	1.25	1.05	.99
282651CR	DS1233M-5	TO-92	5V econoreset, CPU supervisory .....	1.15	1.00	.90
282685CR	DS1233-10	TO-92/4	5V econoreset, CPU supervisory .....	1.25	1.10	.99
298089CR	DS1811-5	TO-92	5V econoreset w/ open drain output .....	.99	.69	.60
298118CR	DS1811-10	TO-92	5V econoreset w/ open drain output .....	1.01	.68	.63
298100CR	DS1811-15	TO-92	5V econoreset w/ open drain output .....	.99	.75	.73

## RS-232 Drivers/Receivers



Part No.	Cross Ref.	Pkg.	Description	1	10	100
142535CR	HIN202CP	DIP-16	+5V RS-232 trans. requires 0.1µF caps ..	\$2.49	\$2.25	\$2.05
244232CR	MAX202CSE	SOIC-16	+5V RS-232 trans. w/ 0.1µF ext. caps .....	1.17	1.02	.90
244241CR	MAX202EPE	DIP-16	+5V RS-232 transceivers .....	1.13	.99	.88
244259CR	MAX202ESE	SOIC-16	+5V RS-232 trans. w/ 0.1µF ext. caps .....	1.13	.99	.88
299794CR	MAX207CWG	SOIC-24	RS-232 transceivers w/ 0.1µF ext. cap .....	3.65	2.77	2.00
282790CR	MAX211CAI	SSOP-28	+5V RS-232 trans. w/ 0.1µF ext. caps .....	6.59	4.59	3.49
291215CR	MAX222CPN	DIP-18	+5V powered multichannel RS-232 drivers/recvr	4.05	3.53	3.18
291303CR	MAX222CWN	SOIC-18	+5V powered multichannel RS-232 drivers/recvr	3.99	2.45	2.06
24811CR	MAX232CPE*	DIP-16	Dual RS-232 receiver/transmitter .....	2.19	1.75	1.45
106147CR	MAX232CWE	SOIC-16	+5V pwred, dual RS-232 trans./receiver .....	2.75	2.10	1.36
256401CR	MAX232DR	SOIC-16	Dual EIA-232 driver/receiver .....	.99	.89	.81
106155CR	MAX232EPE	DIP-16	+5V dual RS-232 (-40°C to +85°C) .....	2.49	2.25	2.05
106163CR	MAX233CPG	DIP-20	+5V multichannel RS-232 driver/receiver ..	5.75	5.18	4.66
106171CR	MAX235CPG	DIP-24	+5V five RS-232 driver/receiver .....	9.95	8.95	7.95
106180CR	MAX238CNG	DIP-24	+5V quad RS-232 driver/receiver .....	6.29	4.79	3.28
276883CR	MAX323CDWR	SOIC-20	True 3V-5.5V RS-232 trans.w/ autoshtdwn ..	1.79	1.61	1.45
193691CR	DS1488D	SOIC-14	Quad line driver RS-232 (75188D) .....	\$2.29	.27	.23
21357CR	DS1488N*	DIP-14	Quad line driver RS-232 (75188N) .....	.29	.25	.22
16361CR	DS14C88N	DIP-14	Quad CMOS line driver RS-232 .....	.45	.40	.35
193703CR	DS1489D	SOIC-14	Quad line receiver RS-232 (75189D) .....	\$2.29	.27	.23

\*10 pcs. in Linear series IC cabinet kit, pg 29

## RS-232 Drivers/Receivers (Con't)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
23181CR	DS1489N*	DIP-14	Quad line receiver RS-232 (75189N) .....	\$ .29	\$ .20	\$ .18
16379CR	DS14C89N	DIP-14	Quad CMOS line receiver RS-232 .....	.75	.54	.53
252128CR	MAX3221CAE	SSOP-16	RS-232 transceiver with auto shutdown ..	2.55	1.95	1.52
277042CR	MAX3221ECAE	SSOP-16	True 3V-5.5V RS-232 trans.w/ autoshtdwn ..	2.95	2.36	2.13
299760CR	MAX3222CAP	SSOP-20	True RS-232 low power transceiver .....	3.25	2.21	1.59
276963CR	MAX3222CDBR	SSOP-20	3V-5.5V, low pwr RS-232 transceiver .....	2.15	1.94	1.74
276859CR	MAX3232CDR	SOIC-16	3V-5.5V, true RS-232 transceiver .....	1.79	1.61	1.45
276867CR	MAX3232CSE	SOIC-16	3V-5.5V, true RS-232 transceiver .....	3.19	2.44	1.58
276795CR	MAX3238CDBR	SSOP-28	3V5.5V, true RS-232 w/ autoshtdwn .....	1.95	1.73	1.55
276824CR	MAX3238IDBR	SSOP-28	3V5.5V, true RS-232 w/ autoshtdwn .....	2.19	1.96	1.77
276761CR	MAX3243CDWR	SOIC-28	True 3V-5.5V RS-232 trans.w/ autoshtdwn ..	1.37	1.27	1.14
276779CR	MAX3243IDWR	SOIC-28	True 3V-5.5V RS-232 trans.w/ autoshtdwn ..	1.79	1.61	1.45
299911CR	DS14C232CM	SOIC-16	Low pwr TIA/EIA 232 dual driver/recvr .....	1.79	1.35	.94
235301CR	DS14C232CN	DIP-16	Low pwr +5V pwr TIA/EIA 232 dual driver/recvr	1.25	1.12	.83
277982CR	SN75185DW	SOIC-20	Multiple RS-232 drivers/receivers .....	.59	.45	.35
256081CR	SN75185N	DIP-20	Multiple RS-232 drivers/receivers .....	.59	.45	.34
245366CR	SN75C188D	SOIC-14	Quad low power line driver .....	.56	.42	.32
23181CR	SN75189N	DIP-14	Quad line rec. RS-232 (DS1489N) .....	.29	.20	.18
245374CR	SN75C189D	SOIC-14	Quad low power line receiver .....	.79	.61	.45
278205CR	TL145406N	DIP-16	Triple RS-232 drivers/receivers .....	1.19	.96	.71
25099CR	MC145406P	DIP-16	RS232-C/V.28 driv./rec. (CMOS) (75C1406N)	1.95	1.75	1.59

\*10 pcs. in Linear series IC cabinet kit, pg 29

## RS-422/485 Line Drivers/Receivers



Part No.	Cross Ref.	Pkg.	Description	1	10	100
299815CR	LTC485CS8	SOIC-8	RS-485 low power interface transceiver ..	\$1.85	\$1.75	\$1.45
299807CR	LTC485CN8	DIP-8	RS-485 low power interface transceiver ...	2.09	1.39	1.15
276605CR	MAX490CSA	SOIC-8	Low pwr, slew-rate limited RS-485/422 trans. .	2.55	1.95	1.28
276576CR	MAX490CPA	DIP-8	Low pwr, slew-rate limited RS-485/422 trans. .	2.55	2.05	1.83
276550CR	MAX491CPD	DIP-14	Low pwr, slew-rate limited RS-485/422 trans. .	2.55	2.05	1.85
244179CR	ADM1485JN	DIP-8	RS-485 differential bus transceivers .....	2.05	1.83	1.65
244187CR	ADM1485JR	SOIC-8	RS-485 differential bus transceivers .....	1.55	1.38	1.25
235310CR	DS1487N	DIP-8	Low pwr RS-485 1/4 unit load multipoint recvr	1.75	1.32	1.18
244195CR	MAX1487CPA	DIP-8	RS-485/RS-422 low-power transceivers ..	2.45	1.89	1.31
244208CR	MAX1487CSA	SOIC-8	RS-485/RS-422 low-power transceivers ..	1.89	1.69	1.52
39571CR	26LS30	DIP-16	Dual diff RS422 party line Qd RS423 line driv. ....	2.49	2.25	1.95
39589CR	26LS31CN	DIP-16	Quad diff line driver .....	.79	.69	.62
243555CR	AM26LV31CD	SOP-16	RS-422 quad differential line transceivers ....	1.25	1.09	.92
39600CR	26LS32CN	DIP-16	Quad diff line receiver RS422/423 .....	.59	.50	.37
272217CR	DS26LV32ACN	DIP-16	Quad diff line receiver .....	.59	.45	.29
242051CR	AM26LV32CD	SOP-16	RS-422 quad differential line receivers .....	1.05	.92	.83
252427CR	MC3486D	SOIC-16	Quad EIA-422/423 line rec. w/ 3-st. outputs ..	.66	.50	.38
25232CR	MC3486P	DIP-16	Quad EIA-422/423 line rec. w/ 3-st. outputs ..	.59	.49	.45
252961CR	MC3487D	SOIC-16	Quad EIA-422 differential line driver .....	.65	.50	.38
25259CR	MC3487P	DIP-16	Quad EIA-422 line driver w/ 3-state outputs ..	.69	.59	.45
298142CR	DS3691M	SOIC-16	RS-422/423 line drivers w/ 3-state outputs ....	1.99	1.48	1.11
298134CR	DS3691N	DIP-16	RS-422/423 line drivers w/ 3-state outputs ....	1.29	1.03	.83
144039CR	DS3695N	DIP-8	Multipoint RS-485/422 trans. w/ 3-st. outputs	1.85	1.38	1.02
235336CR	DS3696N	DIP-8	Multipoint RS-485/RS-422 trans./repeaters ..	1.59	1.29	1.18
299671CR	DS8921AN	DIP-8	RS-422 differential line driver/receiver pair ..	1.59	.98	.86
298169CR	DS8921M	SOIC-8	RS-422 differential line driver/receiver pair ..	1.45	1.10	.83
299701CR	DS8922AM	SOIC-16	RS-422 dual differential line driver/receiver pair	1.59	1.19	.90
299719CR	DS8922AN	DIP-16	RS-422 dual differential line driver/receiver pair	1.59	1.19	.89
299727CR	DS8923AM	SOIC-16	RS-422 dual differential line driver/receiver pair	1.65	1.22	.92
235344CR	DS36C278N	DIP-16	Low pwr multipoint EIA RS-485 transceiver ..	2.69	2.25	2.15
241980CR	SN75LBC172N	DIP-16	RS-485 differential line drivers .....	3.70	3.32	2.79
241998CR	SN75LBC173N	DIP-16	RS-422/RS-423/RS-485 diff. line rec. ....	2.55	2.28	1.85
50948CR	SN75174N	DIP-16	Quad diff. RS-422 line driver w/ 3-st. out .....	.91	.77	.62
245340CR	SN75175D	SOIC-16	Quad differential line receivers .....	.56	.40	.34
50956CR	SN75175N	DIP-16	Quad diff. EIA 422A/423A line rec. w/3-st. out ..	.69	.59	.49
243707CR	SN75LBC175D	SOIC-16	Quadruple low power diff. line receiver .....	1.24	1.08	.90
243715CR	SN75LBC175N	DIP-16	RS-422/RS-423/RS-485 diff. line receivers ..	2.40	2.25	1.75
50964CR	SN75176BN	DIP-8	Differential bus transceiver .....	.65	.55	.45
251053CR	SN75LBC176AD	SOIC-8	Differential bus transceiver .....	3.19	2.84	1.99

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## RS-422/485 Receivers (Continued)



Part No.	Cross Ref.	Pkg.	Description	1	10	100
244136CR	SN75LBC176AP	DIP-8	RS-485 differential bus transceivers .....	\$2.75	\$2.46	\$1.99
251846CR	SN75LBC176D	SOIC-8	Differential bus transceiver RS485 .....	1.62	1.31	.86
243723CR	SN75LBC176P	DIP-8	RS-485 differential bus transceivers .....	2.15	1.99	1.75
235387CR	DS96172CN	DIP-16	RS-485/RS-422 quad diff. line drivers .....	3.80	3.60	3.45
235361CR	DS96173CN	DIP-16	RS-485/RS-422 quad diff. line recvr. ....	2.59	2.35	2.05
235395CR	DS96174CN	DIP-16	RS-485/RS-422 quad diff. line drivers .....	2.49	1.89	1.49
235379CR	DS96175CN	DIP-16	RS-485/RS-422 quad diff. line receivers ..	2.49	1.89	1.49
235408CR	DS96176CN	DIP-8	RS-485/RS-422 diff. bus transceivers ..	1.79	1.59	1.19

## Interface Series



Part No.	Cross Ref.	Pkg.	Description	1	10	100
116206CR	TC426CPA	DIP-8	Dual 1.5A hi speed pwr MOSFET driver ....	\$1.49	\$1.26	\$1.13
245593CR	TC426EOA	SOIC-8	Dual 1.5A hi speed pwr MOSFET driver ....	1.55	.99	.94
242077CR	TC428CPA	DIP-8	Dual MOSFET 1.5A driver .....	1.35	.97	.86
242085CR	MAX626CPA	DIP-8	Dual 1.5A-peak low-side MOSFET driver .....	1.14	.93	.90
242093CR	MAX627CPA	DIP-8	Dual MOSFET driver .....	1.10	.99	.93
246692CR	LT1030N	DIP-14	Quad low power line driver .....	1.11	.93	.76
12239CR	CA3161E	DIP-16	BCD to 7-seg. decoder driver .....	2.13	1.95	1.58
25216CR	MC3479P	DIP-16	Biphase stepper motor driver .....	3.99	3.39	2.69
24230CR	LM3914N	DIP-18	Bar-graph display driver .....	2.55	2.15	1.99
300003CR	LM3914N-1	DIP-18	Dot/bar display driver .....	1.65	1.54	1.38
246625CR	LM3914V	PLCC-20	Dot/bar display driver .....	2.58	2.18	1.68
24256CR	LM3915N	DIP-18	3 dB steps bar-graph disp. driver .....	2.49	1.99	1.55
24272CR	LM3916N	DIP-18	VU meter display driver .....	2.25	1.95	1.75
291320CR	MIC4420CM	SOIC-8	6A-peak low side MOSFET driver .....	1.05	1.03	.90
291434CR	MIC4420CN	DIP-8	6A-peak low side MOSFET driver .....	1.29	1.15	1.05
251029CR	TC4420COA	SOIC-8	6A high speed MOSFET drivers .....	1.45	1.32	1.19
291590CR	MIC4427CM	SOIC-8	Dual 1.5A-peak low side MOSFET driver ...	1.15	1.05	.94
291645CR	MIC4429CN	DIP-8	6A-peak low side MOSFET driver .....	1.29	1.19	1.05
243379CR	MM5453N	DIP-40	Liquid crystal display driver .....	2.79	2.29	2.09
241875CR	FAN8082	DIP-8	Bi-directional, 18V DC motor driver .....	.95	.90	.85
241867CR	FAN8200	DIP-14	Bi-directional, 2-ch, 9V stepper motor driver ..	.85	.80	.76
213170CR	UA9636A	DIP-8	Dual differential line receiver (MC3488A) <del>\$1.72</del> .55	.47	.38	.35
256727CR	SN65LVDS31D	SOIC-16	High speed differential line driver .....	3.32	2.68	2.10
256719CR	SN65LVDS048AD	SOIC-16	LVDS quad differential line receiver .....	3.29	2.87	2.59
272188CR	SN65LVDS050D	SOIC-16	High speed diff. line drivers & receivers ...	3.99	3.48	3.13
241824CR	MC14489	DIP-20	5V, LED display/lamp driver .....	3.95	3.15	3.00
50884CR	SN75154N	DIP-16	Quad line receiver .....	<del>\$1.69</del> .60	.51	.38
277907CR	SN75172N	DIP-16	Quad differential line driver .....	1.15	.91	.69
245331CR	SN75173D	SOIC-16	Quadruple differential line receiver .....	1.15	.92	.70
50930CR	SN75173N	DIP-16	Quadruple differential line receiver .....	.99	.95	.91
277958CR	SN75179BD	SOIC-8	Differential driver and receiver pair .....	.95	.79	.65
277940CR	SN75179BP	DIP-8	Differential driver and receiver pair .....	<del>\$1.29</del> .78	.72	.67
278133CR	SN75LBC180AN	DIP-14	Low pwr diff. line driver & receiver pairs ....	2.15	1.94	1.75
277966CR	SN75182N	DIP-14	Dual differential line receivers .....	.79	.66	.55
277974CR	SN75183N	DIP-14	Dual differential line drivers .....	1.19	.95	.71
51027CR	SN75451AN	DIP-8	Dual peripheral AND driver .....	.49	.44	.39
51035CR	SN75452N	DIP-8	Dual peripheral NAND driver .....	.39	.33	.25
278002CR	SN75453BP	DIP-8	Dual peripheral OR drivers .....	.39	.30	.23
277317CR	SN75454BP	DIP-8	Dual peripheral NOR drivers .....	.39	.30	.23
277430CR	SN75462P	DIP-8	Dual peripheral NAND drivers .....	.62	.47	.36
278037CR	SN75471P	DIP-8	Dual peripheral AND driver .....	.63	.47	.31
278053CR	SN75472P	DIP-8	Dual peripheral NAND driver .....	.54	.42	.37
278061CR	SN75477P	DIP-8	Dual peripheral NAND driver .....	.56	.44	.34
51131CR	SN75492P	DIP-14	Hex digit driver (492) .....	4.25	3.89	2.99
253083CR	SN751730N	DIP-16	Triple line driver/receiver .....	2.35	1.90	1.50

## Digital Interface ICs



Part No.	Product No.	Pkg.	Description	1	10	50
141532CR	EDE1200	DIP-18	Unipolar stepper motor controller .....	\$8.30	\$6.90	\$5.90
157526CR	EDE1204	DIP-18	Bipolar stepper motor controller .....	8.30	6.90	5.90
171969CR	EDE1144	DIP-18	Keypad encoder .....	7.00	5.65	5.00
171951CR	EDE702	DIP-18	Serial LCD interface .....	9.00	7.65	6.75

## 5000 Series and Clock Chips



Part No.	Cross Ref.	Pkg.	Description	1	10	50
32803CR	TCM5089N	DIP-16	Integrated tone dialer chip .....	\$4.99	\$4.49	\$3.99
26091CR	MM5321N	DIP-16	TV camera synchronous generator .....	6.99	6.59	5.99
26171CR	MM5450N	DIP-40	34-segment LED display driver .....	2.99	2.79	2.39
86799CR	LM555CM	SOIC-8	Timer (NE555D) .....	<del>\$29</del> .245	.21	.185
27422CR	LM555CN**	DIP-8	Timer (MC1455P/NE555V) .....	.27	.23	.19
126797CR	LMC555CN*	DIP-8	CMOS 555 timer .....	.54	.49	.44
24328CR	LM556N*	DIP-14	Dual 555 timer .....	.77	.57	.42
243395CR	DP8573AN	DIP-24	5V real time clock chip .....	11.29	9.69	8.59
26201CR	MM58167AN	DIP-24	Microprocessor real time clock .....	4.49	3.85	2.85
95530CR	RTC72421B	DIP-18	Real time clock module .....	6.79	5.69	4.17
25101CR	MC146818	DIP-24	Real time clock plus RAM .....	4.09	3.48	2.61
287831CR	MC14489BDW	SOG-20	5V LED driver, 5 digit / 25 lamps .....	3.39	3.19	3.05

\*10 pcs. in Linear series IC cabinet kit, pg 29 \*\*20 pcs. in Linear series IC cabinet kit, pg 29

## UARTs



Part No.	Cross Ref.	Pkg.	Description	1	10	100
43158CR	6402	DIP-40	CMOS/LSI UART (TR1863) .....	\$4.95	\$4.49	\$4.05
27570CR	NS16C450N	DIP-40	CMOS ACE (IBM-AT compat.) (82C450) .....	3.49	2.69	2.09
288753CR	TL16C450FN	PLCC-68	5V UART, 1-channel w/o FIFO .....	2.65	2.12	1.66
288761CR	TL16C451FN	PLCC-68	5V UART, 1-channel w/o FIFO, parallel port ..	4.39	3.55	2.79
288770CR	TL16C452FN	PLCC-68	5V UART, 2-channel w/o FIFO, parallel port ..	4.49	3.59	2.85
27596CR	NS16550AN	DIP-40	UART w/ FIFO (PC16550DN) .....	5.89	4.49	3.39
288796CR	TL16C550CFN	PLCC-44	5V UART, 1-channel w/ FIFO, ACF .....	3.09	2.49	1.95
288809CR	TL16C550CN	DIP-44	5V UART, 1-channel w/ FIFO, ACF .....	3.09	2.49	1.95
288825CR	TL16C552AFN	PLCC-68	5V UART, 2-channel, biontronics port ....	5.99	4.85	4.09
288841CR	TL16C554FN	PLCC-68	5V UART, 4-channel w/ 16B FIFO .....	9.95	9.45	8.99
288876CR	TL16C750FN	PLCC-44	5V UART, 1-channel w/ 64B FIFO .....	5.75	5.65	5.55
288905CR	TL16C754BFN	PLCC-68	5V UART, 4-channel w/ 64B FIFO .....	13.69	12.99	12.35

## Encoders/Decoders



Part No.	Cross Ref.	Pkg.	Description	1	10	100
243942CR	HCS300	DIP-8	2-6.3V, Code hopping decoder .....	\$1.75	\$1.65	\$1.55
243483CR	HCS512	DIP-18	3-6V, Code hopping decoder .....	7.15	6.85	6.50
243934CR	HCS515	DIP-14	3-6V, Code hopping decoder .....	2.90	2.74	2.60
243951CR	HCS2000	DIP-8	3.5-13V, Code hopping decoder .....	1.52	1.45	1.40
123730CR	HT12E	DIP-18	Encoder 12-bit .....	1.69	1.49	1.29
123748CR	HT12D	DIP-18	Decoder 8-bit address/4-bit data .....	1.69	1.49	1.29
243441CR	MCP2120	DIP-14	IrDA encoder/decoder .....	2.10	1.90	1.80
243459CR	MCP2150	DIP-18	IrDA standard protocol stack controller ....	7.29	7.05	6.70
243408CR	TP3054	DIP-16	5V serial PCM u-Law .....	2.39	1.79	1.49
243416CR	TP3057	DIP-16	5V serial PCM A-Law .....	2.49	1.75	1.49
243424CR	TP3064	DIP-20	5V serial PCM u-Law .....	3.20	3.05	2.90
243432CR	TP3067	DIP-20	5V serial PCM A-Law .....	2.39	1.95	1.49
289529CR	TL3C20A01CFN	PLCC-28	Audio codec, 14-bit, 1-channel, 25kHz ....	6.99	6.85	6.60
288745CR	TIR1000PWR	TSSOP-8	Standalone IrDA encoder/decoder .....	2.25	2.19	2.05
287937CR	MCP2120	SOIC-14	IrDA encoder/decoder .....	1.99	1.89	1.85
287945CR	MCP2140-I/P	DIP-18	IrDA controller, + DTE/DCE endec .....	2.29	2.26	2.17
287953CR	MCP2140-I/SO	SOIC-18	IrDA controller, + DTE/DCE endec .....	2.29	2.22	2.15
287961CR	MCP2140-I/SS	SSOP-20	IrDA controller, + DTE/DCE endec .....	2.39	2.35	2.27
287970CR	MCP2150-I/SO	SOIC-18	IrDA standard protocol stack controller ....	6.95	6.85	6.70
291004CR	TP3054WM	SOIC-16	PCM codec, 1-ch., u-law, 2MHz .....	2.25	1.75	1.35
287849CR	MC145026D	SOIC-16	Encoder, 9-line, simplex, OSC .....	1.99	1.27	1.15
296702CR	MC145026P	DIP-16	Encoder, 9-line, simplex, OSC .....	1.99	1.29	1.15
287865CR	MC145027DW	SOIC-16	Decoder, 5-line, simplex, OSC .....	2.39	2.05	1.80
296711CR	MC145027P	DIP-16	Decoder, 5-line, simplex, OSC .....	2.25	1.55	1.41
296729CR	MC145028P	DIP-16	Decoder, 9-line simplex, OSC .....	2.75	1.85	1.69
287873CR	MC145481DW	SOG-20	PCM codec, 13-bit, 1-ch., u-law/a-law ....	2.69	2.49	2.35
287881CR	MC145483SD	SSOP-20	PCM codec, 13-bit, 1-ch., u-law/a-law ....	3.05	2.85	2.60
287890CR	MC145484DW	SOIC-20	PCM codec, 13-bit, 1-ch., u-law/a-law ....	2.39	1.65	1.55
287902CR	MC145484SD	SSOP-20	PCM codec, 13-bit, 1-ch., u-law/a-law ....	2.75	2.49	2.35

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## KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

## 146472CR: PIC-SERVO Motion Control Chipset for DC Motors

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)



175901CR

## 175901CR: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents
- Programmable accelerations and minimum step rates

Part No.	Description	Package	1	10	50
146472CR	PIC-SERVO chip set	DIP-28/18, 0.3"	\$34.95	\$29.50	\$27.95
175901CR	PIC-STEP chip	DIP-28, 0.3"	25.75	21.75	19.75

## Stepper Motor Drivers/Controllers

Part No.	Cross Ref.	Pkg.	Description	1	10	100
288059CR	L292	Multiwatt-15	Switch mode DC motor drive, 36V, 36kHz	\$5.39	\$4.99	\$3.99
288067CR	L297/1	DIP-20	5V stepper motor controller	5.49	5.25	4.69
288075CR	L297D	SOIC-20	5V stepper motor controller	5.99	5.69	5.40
288083CR	L6201	SOIC-20	36V DMOS full bridge motor driver	7.79	7.19	6.45
288091CR	L6202	DIP-18	36V DMOS full bridge motor driver	7.85	6.39	5.79
288104CR	L6203	Multiwatt-11	36V DMOS full bridge motor driver	12.35	11.09	10.55
288112CR	L6506	DIP-18	5V stepper motor current controller	4.25	3.49	2.95
288121CR	L6506D	SOIC-20	5V stepper motor current controller	4.49	3.75	3.31

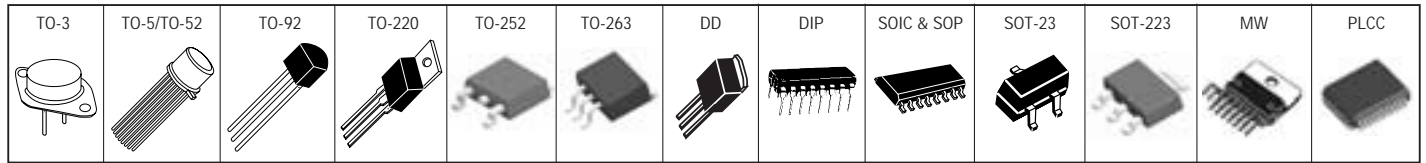
## A/D &amp; D/A Converters

Part No.	Cross Ref.	Pkg.	Description	1	10	100
43748CR	7106CPL	DIP-40	A/D with 3 1/2-digit LCD control	\$3.39	\$2.99	\$2.49
43756CR	7107CPL	DIP-40	A/D with 3 1/2-digit LED control	3.19	2.59	2.19
290263CR	ICL7135CPI	DIP-28	4 1/2 digit precision A/D converter	5.79	4.70	4.02
289545CR	TLC5401DW	SOIC-20	8-bit A/D w/ MUX, sample and hold, serial, 75kHz	3.43	3.35	3.19
289553CR	TLC5401FN	PLCC-20	8-bit A/D w/ MUX, sample/hold, serial, 75kHz	3.39	3.29	3.15
289588CR	TLC5401IN	DIP-20	8-bit A/D w/ MUX, sample/hold, serial, 75kHz	3.35	3.15	2.99
289596CR	TLC5411DW	SOIC-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.89	2.64	2.55
289609CR	TLC5411FN	PLCC-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.75	2.45	1.95
289625CR	TLC5411IN	DIP-20	8-bit A/D w/ MUX, sample/hold, serial, 40kHz	2.85	2.69	2.55
289684CR	TLC542CDW	SOIC-20	8-bit A/D w/ OSC., 25kHz	2.55	2.47	2.45
289692CR	TLC542CN	DIP-20	8-bit A/D w/ OSC., 25kHz	2.55	2.47	2.45
289705CR	TLC5421FN	PLCC-20	8-bit A/D w/ OSC., 25kHz	2.79	2.45	1.97
289713CR	TLC545CN	DIP-28	8-bit A/D w/ MUX, sample/hold, serial 76kHz	5.45	5.35	5.25
289730CR	TLC548ID	SOIC-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	2.39	2.25	2.20
289756CR	TLC548CP	DIP-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	2.35	1.99	1.69
289781CR	TLC549CD	SOIC-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	1.95	1.75	1.65
289810CR	TLC549CP	DIP-8	8-bit A/D w/ sample/hold, 1-channel, 45kHz	1.99	1.76	1.69
290984CR	TLV5711DW	SOIC-24	8-bit, 1-ch parallel A/D converter, 2.7V to 5.5V	4.29	4.09	3.99
290992CR	TLV5711PW	TSSOP-24	8-bit, 1-ch parallel A/D converter, 2.7V to 5.5V	4.29	4.09	3.99
10145CR	ADC0803LCN	DIP-20	8-bit A/D 1-input ( $\pm 1/2$ LSB), 100 $\mu$ s	4.59	3.90	2.93
10153CR	ADC0804LCN	DIP-20	8-bit A/D 1-input ( $\pm 1/2$ LSB), 100 $\mu$ s	2.49	1.89	1.39
10170CR	ADC0808CCN	DIP-28	8-bit A/D w/ 8-ch. mux. ( $\pm 1/2$ LSB), 100 $\mu$ s	4.99	4.19	3.43
10188CR	ADC0809CCN	DIP-28	8-bit A/D w/ 8-ch. mux. ( $\pm 1$ LSB), 100 $\mu$ s	2.89	2.59	1.99
10209CR	ADC0817CCN	DIP-40	8-bit A/D w/ 16-ch. mux. ( $\pm 1/2$ LSB), 100 $\mu$ s	7.29	6.65	5.95
10225CR	ADC0820CCN	DIP-20	8-bit hi spd (1/2 $\mu$ s) A/D w/ track&hold	2.99	2.29	2.10
116100CR	ADC0831CCN	DIP-8	8-bit A/D w/ mux. diff. input ( $\pm 1$ LSB), 32 $\mu$ s	1.95	1.75	1.59
290474CR	TLV0831CD	SOIC-8	8-bit A/D, multiplexer, serial, 49kHz	2.39	2.29	2.25
290491CR	TLV0831CP	DIP-8	8-bit A/D, multiplexer, serial, 49kHz	2.39	2.15	1.75
251176CR	TL0831CP	DIP-8	8-bit A/D, w/ serial control ( $\pm 1$ LSB), 32 $\mu$ s	2.69	2.55	2.45
290538CR	TLC0832CD	SOIC-8	8-bit A/D, multiplexer, serial, 45kHz	2.39	2.29	2.25
290554CR	TLV0832CP	DIP-8	8-bit A/D, multiplexer, serial, 45kHz	2.39	2.29	2.25
290562CR	TLV0834CD	SOIC-14	8-bit A/D, multiplexer, serial, 41kHz	2.49	2.25	1.79
290571CR	TLV0834IN	DIP-14	8-bit A/D, multiplexer, serial, 41kHz	2.65	2.57	2.50
290600CR	TLV0838CDW	SOIC-20	8-bit A/D, multiplexer, serial, 38kHz	2.49	2.39	2.35
290618CR	TLV0838IN	DIP-20	8-bit A/D, multiplexer, serial, 38kHz	2.65	2.55	2.50

## A/D &amp; D/A Converters

Part No.	Cross Ref.	Pkg.	Description	1	10	100
287603CR	ADS930E	SSOP-28	8-bit A/D ( $\pm 1$ LSB), 30MHz	\$4.89	\$4.60	\$4.00
296690CR	AD7226KN	DIP-20	8-bit A/D 4-input ( $\pm 1$ LSB), 5us	19.89	18.79	17.65
287321CR	AD7226KR	SOIC-28	8-bit A/D 4-input ( $\pm 1$ LSB), 5us	19.89	18.79	17.65
242296CR	TLC1541	DIP-20	10-bit A/D 11-inputs ( $\pm 1$ LSB), 38ksps	3.39	2.89	2.33
242309CR	TLC1549	DIP-20	10-bit A/D 1-input ( $\pm 1$ LSB), 38ksps	3.69	2.99	2.29
287591CR	ADS901E	SSOP-28	10-bit A/D, ( $\pm 1$ LSB), 25MHz	6.49	6.25	5.90
288681CR	THS10301DW	SOIC-28	10-bit A/D, 30Msps parallel	7.29	7.05	6.75
288690CR	THS1031DW	SOIC-28	10-bit A/D, 30Msps parallel	8.09	7.85	7.55
288729CR	THS1031PW	TSSOP-28	10-bit A/D, 30Msps parallel	8.09	7.85	7.55
289001CR	TLC1541CDW	SOP-20	10-bit A/D, 11-input serial, 32kHz	6.05	5.75	5.45
289019CR	TLC1541CN	DIP-20	10-bit A/D, 11-input serial, 32kHz	6.09	5.85	5.75
289027CR	TLC1541CFN	PLCC-20	10-bit A/D, 11-input serial, 32kHz	5.79	5.59	5.39
289078CR	TLC1542CDW	SOP-20	10-bit A/D, 11-input serial, 38kHz	4.65	4.09	3.49
289107CR	TLC1542CN	DIP-20	10-bit A/D, 11-input serial, 38kHz	4.55	4.39	4.25
289115CR	TLC1542CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz	4.55	4.39	4.25
289123CR	TLC1543CDB	SSOP-20	10-bit A/D, 11-input serial, 38kHz	3.23	3.19	3.09
289131CR	TLC1543CDW	SOIC-20	10-bit A/D, 11-input serial, 38kHz	3.35	3.25	3.09
289220CR	TLC1543CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz	3.35	3.25	3.09
289271CR	TLC1543QDB	SSOP-20	10-bit A/D, 11-input serial, 38kHz	4.05	3.79	3.75
289300CR	TLC1543QDW	SOIC-20	10-bit A/D, 11-input serial, 38kHz	3.99	3.79	3.75
289334CR	TLC1543CFN	PLCC-20	10-bit A/D, 11-input serial, 38kHz	3.99	3.79	3.75
289369CR	TLC1549CD	SOP-8	10-bit A/D serial, 11-input, 38kHz	3.35	3.19	3.05
289377CR	TLC15511FN	PLCC-28	10-bit A/D, 11-input parallel, 164kHz, ITMP	6.29	5.99	5.70
277165CR	MAX186BCPP	DIP-20	12-bit serial A/D w/ 8-ch, low power	29.95	23.55	21.25
277157CR	MAX186DCWP	SOIC-20	12-bit serial A/D w/ 8-ch, low power	19.75	15.55	13.99
277069CR	MAX197BCNI	DIP-28	Sngl, +5V 12-bit A/D w/ 8-ch, 1/2 LSB	24.99	22.95	20.95
287515CR	ADS574JP	DIP-28	12-bit A/D ( $\pm 1$ LSB), 40ksps	38.79	36.85	35.00
287574CR	ADS574KP	DIP-28	12-bit A/D ( $\pm 1$ LSB), 40ksps	44.75	42.49	40.39
287283CR	AD674BJN	DIP-28	12-bit A/D 1-input ( $\pm 1$ LSB), 15us	41.35	31.05	25.05
287582CR	ADS774JU	SOIC-28	12-bit A/D ( $\pm 1$ LSB), 125ksps	35.45	33.69	32.00
289422CR	TLC2543CDW	SOIC-20	12-bit A/D, 11-input serial, 66kHz	8.35	7.95	7.55
289431CR	TLC2543CFN	PLCC-20	12-bit A/D, 11-input serial, 66kHz	7.29	6.55	5.59
289465CR	TLC2543CN	DIP-20	12-bit A/D, 11-input serial, 66kHz	8.35	7.95	7.55
289473CR	TLC2543CDB	SSOP-20	12-bit A/D, 11-input serial, 66kHz	8.35	7.95	7.55
290634CR	TLV2543CDW	SOIC-20	12-bit A/D, 11-channel serial	7.99	7.79	7.55
290669CR	TLV2543CDW	DIP-20	12-bit A/D, 11-channel serial	8.35	7.95	7.55
43764CR	7109CPL	DIP-40	12-bit A/D 1-input ( $\pm 2$ LSB), 30sps	7.49	6.37	4.77
287988CR	MCP3301-C/MS	MSOP-8	13-bit A/D, 1-input serial, diff. input	2.79	2.65	2.55
287996CR	MCP3301-C/JP	DIP-8	13-bit A/D, 1-input serial, diff. input	2.59	2.49	2.40
288008CR	MCP3302-C/JP	DIP-14	13-bit A/D, 2-input serial, diff. input	3.59	3.45	3.30
288016CR	MCP3302-C/SL	SOIC-14	13-bit A/D, 2-input serial, diff. input	3.59	3.45	3.30
288024CR	MCP3302-C/IST	TSSOP-14	13-bit A/D, 2-input serial, diff. input	3.85	3.65	3.50
288032CR	MCP3304-C/JP	DIP-16	13-bit A/D, 4-input serial, diff. input	3.95	3.79	3.65
288041CR	MCP3304-C/SL	SOIC-16	13-bit A/D, 4-input serial, diff. input	3.95	3.79	3.65
277149CR	MAX110ACWE	SOIC-16	14-bit serial A/D w/ 2-ch, low cost	15.25	11.99	10.79
277131CR	MAX110BCPE	DIP-16	14-bit serial A/D w/ 2-ch, low cost	11.69	9.21	8.29
277122CR	MAX110BCWE	SOIC-16	14-bit serial A/D w/ 2-ch, low cost	11.69	9.21	8.29
287312CR	AD676JD	DIP-28	16-bit A/D 1-input ( $\pm 1$ LSB), 100ksps	85.69	83.85	81.99
242317CR	ADS7805	DIP-28	16-bit A/D 1-input ( $\pm 3$ LSB), 100ksps	42.65	38.37	34.53
242325CR	ADS7813	DIP-16	16-bit A/D 1-input ( $\pm 2$ LSB), 40ksps	38.83	35.25	33.15
239417CR	ADS7825	DIP-28	16-bit A/D 4-inputs ( $\pm 2$ LSB), 40ksps	46.58	43.47	41.38
287401CR	AD976ABN	DIP-28	16-bit A/D 1-input ( $\pm 2$ LSB), 200ksps	72.69	69.49	66.05
287419CR	AD976ABRS	SSOP-28	16-bit A/D 1-input ( $\pm 2$ LSB), 200ksps	72.99	69.49	66.05
287435CR	AD976BRB	SOIC-28	16-bit A/D 1-input ( $\pm 3$ LSB), 100ksps	42.19	38.79	37.39
287507CR	ADN100A01DBVT	SOT-23/6	16-bit A/D, self-calibrating	3.59	3.45	3.25
288593CR	PCM1800E	SSOP-24	20-bit stereo A/D, 2-input serial, 32-48kHz	4.75	4.65	4.49
288622CR	PCM1801U	SOIC-14	20-bit stereo A/D, 2-input serial, 32-48kHz	4.89	4.29	4.15
287363CR	AD7714AN	DIP-24	24-bit A/D 6-input, 38ksps	18.35	17.95	17.50
287793CR	MC144110DW	SOIC-20	6-bit D/A, 6-input, serial R-2R	4.45	4.20	3.90
287822CR	MC144111DW	SOIC-16	6-bit D/A, 4-input, serial R-2R	3.65	2.49	2.29
115158CR	AD558JN	DIP-16	8-bit D/A 1-input ( $\pm 1/2$ LSB), 200ns	12.59	11.99	11.29
14904CR	DAC0800LCN	DIP-16	8-bit D/A ( $\pm 1$ LSB), 100ns	1.79	1.59	1.45
14912CR	DAC0806LCN	DIP-16	8-bit D/A ( $\pm 1$ LSB), 150ns (MC1408P6)	1.89	1.85	1.82
14947CR	DAC0808LCN	DIP-16	8-bit D/A ( $\pm 1$ LSB), 150ns (MC1408P8)	1.59	1.39	1.09

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.



## A/D &amp; D/A Converters (Continued)



Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
14963CR	DAC0830LCN	DIP-20	8-bit D/A double buffer (.05% Lin.), 1μs	\$5.95	\$4.49	\$4.35
128186CR	DAC0832LCN	DIP-20	8-bit D/A double buffer (.20% Lin.), 1μs	3.09	2.99	1.89
290781CR	TLV5604ID	SOIC-16	8-bit D/A, 4-channel, serial	6.85	6.75	6.39
290790CR	TLV5604IPW	TSSOP-16	8-bit D/A, 4-channel, serial	6.85	6.75	6.39
289836CR	TLC5620CN	DIP-14	8-bit D/A, 4-channel, serial	2.89	2.72	2.69
289844CR	TLC5620CD	SOIC-14	8-bit D/A, 4-channel, serial	2.75	2.64	2.55
289861CR	TLC5628CDW	SOIC-16	8-bit D/A, 8-channel, serial	4.75	4.29	4.15
289879CR	TLC5628CN	DIP-16	8-bit D/A, 8-channel, serial	4.65	4.55	4.30
290968CR	TLV5628DW	SOIC-16	8-bit D/A, 8-channel, serial	4.49	3.95	3.75
290976CR	TLV5628CN	DIP-16	8-bit D/A, 8-channel, serial	4.69	3.79	2.99
54025CR	AD7523JN	DIP-16	8-bit D/A 1-input (±1 LSB), 150ns	2.99	2.49	2.19
289895CR	TLC7524CD	SOIC-16	8-bit D/A, multiplier, parallel	2.59	2.19	1.79
290052CR	TLC7524CN	DIP-16	8-bit D/A, multiplier, parallel	2.75	2.39	1.95
290087CR	TLC7528CN	DIP-20	8-bit D/A, multiplier, parallel	2.69	2.25	1.92
290095CR	TLC7528IDW	SOIC-20	8-bit D/A, multiplier, parallel	2.55	2.49	2.05
287339CR	AD7628KN	DIP-20	8-bit D/A 2-input (±1LSB), 350ns	4.35	3.79	3.70
239425CR	TLC5615	DIP-8	10-bit D/A 1-input (±1 LSB), 12μs	3.49	2.79	2.32
287380CR	AD9760AR	SOIC-28	10-bit D/A, 125MSPs	8.19	7.39	6.69
287443CR	AD9832BRU	TSSOP-16	10-bit DDS D/A, 25MHz	8.89	8.15	7.29
287451CR	AD9850BR	SSOP-28	10-bit DDS D/A w. comp., 3.5ns	20.09	18.45	17.39
287347CR	AD767JN	DIP-24	12-bit D/A 1-input (± LSB), 4μs	20.49	19.49	18.50
287355CR	AD767KN	DIP-24	12-bit D/A 1-input (± LSB), 4μs	25.59	24.29	23.09
14980CR	DAC1222LCN	DIP-18	12-bit D/A (.20% Lin.), 500ns	9.95	8.95	8.05
290802CR	TLV5610IDW	SOIC-20	12-bit D/A, 8-channel, serial	15.99	15.25	14.49
290845CR	TLV5610IPW	TSSOP-20	12-bit D/A, 8-channel, serial	16.05	15.25	14.49
290829CR	TLV5613IDW	SOIC-20	12-bit D/A, 1-channel, parallel	5.09	4.99	4.75
290853CR	TLV5613IPW	TSSOP-20	12-bit D/A, 1-channel, parallel	5.09	5.00	4.75
290896CR	TLV5614CD	SOIC-16	12-bit D/A, 4-channel, serial	13.95	13.25	12.59
290933CR	TLV5614CPW	TSSOP-16	12-bit D/A, 4-channel, serial	13.95	13.25	12.59
287398CR	AD9764AR	SOIC-28	14-bit D/A, 125MSPs	14.25	11.75	11.15
239433CR	DAC712	DIP-28	16-bit D/A 1-input (±1 LSB), 10μs	18.69	17.49	16.19
242771CR	DAC714P	DIP-16	16-bit D/A w/ serial interf. (±1 LSB), 10μs	40.00	36.00	29.50
243336CR	DAC715	SOIC-28	16-bit D/A w/ bus interface (±1 LSB), 10μs	34.60	33.65	32.89
243344CR	DAC716	DIP-16	16-bit D/A w/ serial interf. (±1 LSB), 10μs	27.38	25.55	24.87
243352CR	DAC725	DIP-28	16-bit D/A 2-input (±1 LSB), 8μs	199.95	190.55	171.49

## Low Drop-Out Voltage Regulators

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
299743CR	LM1084IT-ADJ	TO-220	Low drop out 5A adj. pos. voltage reg. ....	\$1.75	\$1.32	\$ .98
299735CR	LM1084IT-3.3	TO-220	Low drop out 5A 3.3V pos. voltage reg. ....	1.75	1.32	.98
282781CR	LD1085D2M33	DD	3A low drop pos volt reg. adj. & fixed .....	1.89	1.71	1.54
282757CR	LT1085CT	TO-220	3A low drop pos volt reg. adj. & fixed .....	1.79	1.61	1.45
302471CR	LM1085IS-ADJ	TO-263	Low drop out 3A adj. pos. voltage reg. ....	1.29	.97	.72
302463CR	LM1085IS-3.3	TO-263	Low drop out 3A 3.3V pos. voltage reg. ....	1.29	.97	.72
302455CR	LM1085IT-ADJ	TO-220	Low drop out 3A adj. positive voltage reg. ....	1.29	.97	.72
244304CR	LD1086D2M	adjustable	adjustable, low dropout voltage reg. ....	1.29	1.15	1.04
244312CR	LD1086D2M33	TO-263/3	3.3V, low dropout voltage regulator .....	1.07	.96	.89
245585CR	LD1086D2M50	TO-263/3	5.0V, low drop positive voltage reg. ....	1.09	.97	.88
245526CR	LM1086CS-ADJ	TO-263/3	1.5A low dropout positive regulator .....	1.09	.81	.59
192305CR	LM1086CT-3.3	TO-220/3	1.5A low dropout positive reg. (3.3V) .....	\$1.18	1.09	.81
192313CR	LM1086CT-5.0	TO-220/3	1.5A low dropout positive reg. (5V) .....	1.18	.87	.64
192292CR	LM1086CTADJ	TO-220/3	1.5A low dropout positive reg. ....	1.09	.79	.59
242042CR	LM1117DT-3.3	TO-252/3	800mA low dropout linear reg. ....	.74	.54	.40
242069CR	LM1117DT-5.0	TO-252/3	800mA, 5V, low dropout voltage reg. ....	.74	.54	.48
251782CR	LM1117MPX-ADJ	SOT-223/3	800mA low drop out linear regulator .....	.37	.35	.33
242114CR	LM1117T-3.3	TO-220/3	800mA, 3.3V, low dropout voltage reg. ....	.73	.56	.51
243539CR	LM1117T-ADJ	TO-220/3	800mA, adj., low dropout voltage reg. ....	.82	.71	.59
300222CR	LT1129CT	TO-220	Micropower low drop out reg. w/ shutdown ..	3.99	3.89	3.69
244216CR	LT1585ACT-3.3	TO-220/3	5A, 3.3V, low dropout voltage reg. ....	4.40	3.97	3.57

## Low Drop-Out Voltage Regulators (cont)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
244224CR	LT1585ACT-ADJ	TO-220/3	5A, adjustable, low dropout volt. reg. ....	\$4.75	\$4.20	\$3.60
244144CR	LT1587CM	DD/3	3A, low dropout voltage regulator .....	5.85	4.00	3.80
244152CR	LT1587CT-3.3	TO-220/3	3A, 3.3V, low dropout voltage reg. ....	1.39	1.03	.76
244161CR	LM1587CT-ADJ	TO-220/3	3A low dropout fast response reg. ....	1.39	1.03	.76
121030CR	LM2931AZ-5.0	TO-92	5V low dropout regulator .....	.49	.43	.31
23368CR	LM2931CT	TO-220/5	3V-24V low dropout regulator .....	.66	.62	.60
256612CR	LM2931D-5.0	SOIC-8	5V low dropout regulator .....	.46	.40	.35
121048CR	LM2931Z-5.0	TO-92	5V low dropout regulator .....	.39	.36	.34
291098CR	LM2937ES-2.5	TO-263	2.5V 500mA low drop out regulator .....	1.55	1.16	.87
297810CR	LM2937ET-5.0	TO-263	5V 500mA low drop out regulator .....	1.35	1.00	.88
291101CR	LM2937ET-10	TO-220	10V 500mA low drop out regulator .....	1.69	1.10	.91
192495CR	LM2940CT-12	TO-220/3	12V low dropout reg. (max. 45Vin) .....	1.27	1.02	.75
107182CR	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin) .....	1.39	1.05	.77
245657CR	LM2941CS	TO-263/5	1A low dropout adjustable regulator .....	1.80	1.33	.99
121064CR	LM2941CT	TO-220/5	1A low dropout adjust. reg. (45Vin) .....	.99	.88	.71
23376CR	LM2941T	TO-220/5	1A low dropout adjust. reg. (60Vin) .....	1.59	1.19	.89
301292CR	LP2950ACZ-3.0	TO-92	Low power, low drop out voltage regulator	1.05	.88	.83
121101CR	LP2950ACZ-5.0	TO-92	100mA low pwr. low dropout volt. reg. ....	\$1.02	.69	.52
266781CR	LP2950CDT-5.0	TO-252/3	100mA low pwr. low drop out volt. reg. ....	.99	.74	.54
266845CR	LP2950CZ-3.0	TO-92	100mA low pwr. low drop out volt. reg. ....	.80	.60	.47
266757CR	LP2950CZ-5.0	TO-92	100mA low pwr. low drop out volt. reg. ....	.80	.59	.29
266669CR	LP2967BP-2533	BPA-8	Dual micropower 150ma low drop-out reg. ....	3.05	2.76	2.48
266589CR	LP2967BP-2828	BPA-8	Dual micropower 150ma low drop-out reg. ....	3.05	2.76	2.49
266626CR	LP2967MM-2528	MSOP-8	Dual micropower 150ma low drop-out reg. ....	2.79	2.50	2.25
266407CR	LP2967MM-2533	MSOP-8	Dual micropower 150ma low drop-out reg. ....	2.79	2.50	2.25
266597CR	LP2967MM-2626	MSOP-8	Dual micropower 150ma low drop-out reg. ....	2.79	2.52	2.27
266642CR	LP2967MM-2828	MSOP-8	Dual micropower 150ma low drop-out reg. ....	2.79	2.50	2.25
266706CR	LP2986ILD-3.0	LLP-8	uPwr, 200mA ultra low dropout fixed volt reg. ....	1.99	1.79	1.62
266722CR	LP2987ILD-5.0	LLP-8	Same as above w/ prog. pwr-on reset delay ..	1.99	1.79	1.62
246545CR	LM3480IM3-3.3	SOT-23/3	100mA quasi low dropout linear volt. reg. ....	.99	.90	.81
246553CR	LM3480IM3-5.0	SOT-23/3	100mA quasi low dropout linear volt. reg. ....	.99	.74	.55
192524CR	LM3940IT-3.3	TO-220/3	1A low dropout, for 5V to 3.3V .....	\$2.29	1.95	1.47
252241CR	MC29152BU	TO-263/5	1.5A high current low dropout regulators .....	2.85	2.68	2.35
251344CR	TP76201DBVR	SOT-23/5	100mA low pwr low output adj. LDO linear reg. ....	1.29	1.16	1.04

## Voltage Regulators

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
282618CR	LM1117H	TO-39	3-terminal adjustable regulator .....	\$6.45	\$5.17	\$4.20
282036CR	LM140LAH-5.0	TO-39	3-terminal positive regulator .....	5.55	4.27	3.24
302375CR	LM1201T	TO-220	1.2 - 37V adj. positive voltage reg. ....	.65	.62	.59
23499CR	LM309K	TO-3/2	5V 1A regulator (0°C to +125°C) .....	4.99	3.85	2.98
192268CR	LM317AT	TO-220/3	3-terminal adjustable reg. (1.2V-37V) .....	1.75	1.25	.95
192276CR	LM317HVT	TO-220/3	3-terminal adjustable reg. (1.2V-57V) .....	1.99	1.77	1.31
23544CR	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V) .....	1.75	1.49	1.12
193551CR	LM317LM	SOIC-8	100mA adj. pos. regulator (1.2V to 37V) ....	.33	.29	.20
23552CR	LM317LZ	TO-92	100mA adj. pos. reg. (1.2V-37V) .....	.23	.22	.20
23579CR	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V) .....	.45	.39	.34
23667CR	LM323K	TO-3/2	5V 3A positive regulator .....	2.89	2.75	2.29
23798CR	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg. ....	2.79	2.69	2.55
193586CR	LM337LM	SOIC-8	1.5A adj. neg. regulator (-1.2V to -37V) ..	\$1.79	.52	.46
296841CR	LM337LZ	TO-92	3-terminal adj. negative voltage reg. ....	.54	.465	.395
23819CR	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V) .....	\$1.69	.59	.55
23835CR	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V) .....	4.95	3.89	3.25
192284CR	LM338T	TO-220/5	5A adjustable regulator .....	1.99	1.49	.99
23931CR	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V) .....	4.75	3.75	2.89
23940CR	LM350T	TO-220/3	3 amp. adj. power regulator .....	1.09	.89	.69
239134CR	LM431ACM	SOIC-8	Programmable shunt regulator .....	.29	.25	.22
278248CR	LT431A1LP	TO-92	Adjustable precision shunt regulator .....	.41	.34	.23
239142CR	LM431BCM	SOIC-8	Programmable shunt regulator .....	.48	.36	.26

\*10 pieces included in Linear kit, pg 29

\*\*20 pieces included in Linear kit, pg 29



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Voltage Regulators (Continued)



Package (see pg 28)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
251862CR	LM431CIM	SOIC-8	Adj. precision zener shunt regulator .....	\$ .37	\$ .32	\$ .28
276525CR	MAX637ACPA	DIP-8	Preset/Adj. output CMOS invert switching reg. ....	6.25	4.95	4.46
276517CR	MAX637ACSA	SOIC-8	Preset/Adj. output CMOS invert switching reg. ....	6.45	4.93	3.60
214050CR	LM723CD	DIP-14	High precision voltage regulator .....	.32	.28	.26
24467CR	LM723CN*	DIP-14	Voltage regulator (2V-37V) .....	.26	.24	.23
301719CR	LM723H	TO-5	2V - 37V, 150mA adj. voltage reg. ....	3.49	2.67	2.07
298071CR	MAX755CSA	SOIC-8	-5V/adj., neg. output, invert, current mode PWM reg. ....	3.85	3.65	3.46
291688CR	LT1074CT	TO-220/5	5A step-down switching regulator .....	9.19	8.99	8.55
300185CR	LTC1147LCS8	SOIC-8	High efficiency step-down switching reg. ....	5.45	3.65	2.95
302279CR	LM2524DN	DIP-16	200mA regulating PWM .....	1.39	.99	.90
192330CR	LM2574HM-5.0	DIP-8	Simple switcher 0.5A step-down volt. reg. ....	3.49	3.15	2.65
192348CR	LM2574HM-12	DIP-8	Simple switcher 0.5A step-down volt. reg. ....	3.85	2.95	2.28
245551CR	LM2574N-ADJ	DIP-8	Simple switcher 0.5A step-down volt. reg. ....	1.29	1.17	1.05
156566CR	LM2574N-5	DIP-8	Step-down 5-voltage regulator .....	1.49	1.27	.95
279638CR	LM2575HVT-5.0	TO-220	Simple switcher 1A step down volt reg. ....	4.35	3.35	3.15
279603CR	LM2575HVT-12	TO-220	Simple switcher 1A step down volt reg. ....	4.35	3.64	3.28
192399CR	LM2576HVT-12	TO-220/5	Simple switcher 3A step down volt. reg. ....	5.89	4.53	3.52
192381CR	LM2576HVT-5.0	TO-220/5	Simple switcher 3A step down volt. reg. ....	5.10	4.59	4.13
192372CR	LM2576HVT-ADJ	TO-220/5	Simple switcher 3A step down volt. reg. ....	5.09	3.93	3.04
245569CR	LM2576T-5.0	TO-220/5	Simple switcher 3A step down volt. reg. ....	2.35	1.76	1.36
120977CR	LM2576T-ADJ	TO-220/5	Simple switcher 3A step down volt. reg. ....	1.89	1.51	1.19
300821CR	LM2586S-ADJ	TO-263	Simple switcher 3A flyback reg. w/ shutdown ..	5.95	5.15	5.06
300871CR	LM2586S-5.0	TO-263	Simple switcher 3A flyback reg. w/ shutdown ..	5.95	5.15	5.06
300898CR	LM2586S-12	TO-263	Simple switcher 3A flyback reg. w/ shutdown ..	5.95	5.15	5.06
300919CR	LM2586T-ADJ	TO-220	Simple switcher 3A flyback reg. w/ shutdown ..	5.95	5.15	5.06
192410CR	LM2587T-ADJ	TO-220/5	Simple switcher 5A flyback regulator .....	7.59	6.05	4.90
300804CR	LM2588S-ADJ	TO-263	Simple switcher 5A flyback reg. w/ shutdown ..	7.75	6.20	5.55
300847CR	LM2588T-ADJ	TO-220	Simple switcher 5A flyback reg. w/ shutdown ..	7.79	7.45	7.05
300759CR	LM2592HVS-ADJ	TO-263	Simple switcher 2A step down voltage reg. ....	5.55	4.59	4.33
300783CR	LM2592HVS-5.0	TO-263	Simple switcher 2A step down voltage reg. ....	5.55	4.59	4.33
300724CR	LM2592HVT-ADJ	TO-263	Simple switcher 2A step down voltage reg. ....	5.55	4.25	3.53
300732CR	LM2592HVT-3.3	TO-220	Simple switcher 2A step down voltage reg. ....	5.55	4.80	4.33
300708CR	LM2594M-ADJ	SOIC-8	Simple switcher 0.5A step down voltage reg. ....	2.79	2.13	1.65
300716CR	LM2594M-3.3	SOIC-8	Simple switcher 0.5A step down voltage reg. ....	2.79	2.41	2.17
192428CR	LM2594N-ADJ	DIP-8	Simple switcher pwr. conv. 150kHz 0.5A ....	2.85	2.53	2.28
300695CR	LM2594N-3.3	DIP-8	Simple switcher 0.5A step down voltage reg. ....	2.79	2.29	2.17
300658CR	LM2595S-ADJ	TO-263	Simple switcher 1A step down voltage reg. ....	4.49	4.25	4.05
300273CR	LM2595S-12	TO-263	Simple switcher 1A step down voltage reg. ....	3.49	2.89	2.74
300775CR	LM2595T-ADJ	TO-220	Simple switcher 1A step down voltage reg. ....	3.49	2.70	2.07
192452CR	LM2595T-5.0	TO-220/5	Simple switcher pwr. conv. 150kHz 1A ....	3.49	2.69	2.07
290626CR	LM2596T-ADJ	TO-220/7	Simple switcher 3A step-down voltage reg. ....	3.89	2.99	2.35
290642CR	LM2596T-5.0	TO-220/7	Simple switcher 3A step-down voltage reg. ....	3.95	3.25	3.09
290597CR	LM2597T-ADJ	TO-220/7	Simple switcher 3A step-down voltage reg. ....	4.69	3.58	3.22
290731CR	LM261MTC-ADJ	TSSOP-16	1.5A high eff. synchronous switching reg. ....	4.05	3.85	3.69
290749CR	LM261MTC-3.3	TSSOP-16	1.5A high eff. synchronous switching reg. ....	3.15	2.99	2.85
290755CR	LM2670S-5.0	TO-263/7	5V hi efficiency simple switcher .....	4.29	3.55	3.35
290765CR	LM2672N-5.0	DIP-8	5V hi efficiency simple switcher .....	3.79	3.15	2.96
290888CR	LM2674M-ADJ	SOIC-8	Adjustable voltage hi efficiency switcher ..	2.85	2.35	2.20
290861CR	LM2674N-5.0	DIP-8	5V hi efficiency simple switcher .....	2.85	2.35	2.20
291012CR	LM2675N-ADJ	DIP-8	Simple switch 1A step down voltage reg., pwr ctrlr ..	3.65	2.99	2.85
291039CR	LM2678S-ADJ	TO-263/7	Simple switcher 5A step down voltage reg., hi-eff	5.45	5.29	5.05
291047CR	LM2678T-5.0	TO-220/7	Simple switcher 5A step down voltage reg., hi-eff	5.45	5.29	5.05
290651CR	LM2596S-ADJ	TO-263	Simple switcher 3A step down voltage reg. ....	3.89	2.99	2.28

\*10 pieces included in Linear kit, below

\*\*20 pieces included in Linear kit, below

## Linear and Interface IC Kit

SAVE \$57

10 each: TL072CP, TL074CN, TL082CP, TL084CN, MAX232CPE, LM301N, LM308N, LM311N, LM337T, LF353N, LF356N, LM358N, LM386N-1, LM386N-3, LM393N, LF411CN, LF412CN, LMC555CN, LM556N, LM723CN, LM1458N, DS1488N, DS1489N, ULN2003AN, ULN2803A, NE5532N, 7808T, 78L12CZ, 7815T, 7905T, 7912CT, 7915CT

20 each: LM317T, LM324N, LM339N, LM741CN, LM555CN, 7805T, 78L05CZ, 7812T

Part No.	Description	Wt. (lbs.)	1	10
84988CR	480 pcs. (40 types) analog IC kit	6.0	\$182.95	\$164.65
130411CR	Refill for 84988CR (480 pcs.)	1.3	169.95	145.95



## Voltage Regulators (Continued)

Package (see pg 28)

\* Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	Pkg.	Description	1	10	100
290394CR	LM2599S-ADJ	TO-263/7	Simple switcher 3A step down vottage reg. ....	\$4.75	\$3.85	\$3.64
290925CR	LM2675LD-ADJ	LLP-16	Simple switcher 1A step down volt. reg. pwr cnvtr ....	4.59	4.35	4.15
245649CR	LM2936MP-3.3	SOT-223	Ultra-low quiescent current 3.3V reg. ....	3.25	2.93	1.92
107166CR	LM2936Z-5	TO-92	Ultra-low quiescent current 5V reg. ....	1.85	1.68	1.18
239151CR	LP2951CM	SOIC-8	Adjustable micropower voltage regulator ...	.91	.68	.49
277077CR	LP2952IM	SOIC-16	Adj. micropower low pwr volt reg. ....	2.35	1.75	1.44
51246CR	7805K	TO-3/2	5V 1A pos. voltage reg. (LM340K-5) .....	5.15	3.95	3.06
51262CR	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5) .....	.35	.32	.28
51182CR	78L5CZ**	TO-92	5V 100mA pos. voltage regulator .....	.27	.24	.22
193754CR	78L05ACM	SOIC-8	5V 100mA pos. voltage regulator .....	\$30.28	.22	.19
192233CR	78M05	TO-220/3	5V 500mA pos. voltage regulator .....	.35	.32	.24
51297CR	7806T	TO-220/3	6V 1A pos. voltage reg. (LM340T-6) .....	.30	.25	.21
193762CR	78L06ACM	SOIC-8	6.2V 100mA pos. voltage regulator .....	\$29.27	.23	.17
51300CR	7808CT*	TO-220/3	8V 1A pos. voltage reg. (LM340T-8) .....	.46	.35	.27
192225CR	78L09ACZ	TO-92	9V 100mA pos. voltage regulator .....	.24	.23	.17
51318CR	7812K	TO-3/2	12V 1A pos. voltage reg. (LM340K-12) ....	2.19	1.79	1.59
51334CR	7812T**	TO-220/3	12V 1A pos. voltage reg. (LM340T-12) .....	.35	.32	.28
51203CR	78L12CZ*	TO-92	12V 100mA pos. voltage regulator .....	*	.19	.155
193771CR	78L12ACM	SOIC-8	12V 100mA pos. voltage regulator .....	\$38.34	.29	.22
192241CR	78M12CT	TO-220/3	12V 500mA pos. voltage regulator .....	.31	.27	.21
51369CR	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15) \$430.19	1.12	1.01	.83
51377CR	7815T*	TO-220/3	15V 1A pos. voltage reg. (LM340T-15) .....	.28	.25	.22
193789CR	78L15ACM	SOIC-8	15V 100mA pos. voltage regulator .....	\$20.*	.16	.12
192250CR	78M15CT	TO-220/3	15V 500mA pos. voltage regulator .....	\$29.27	.23	.17
194634CR	7818T	TO-220/3	18V 1A pos. voltage reg. (LM340T-18) .....	.56	.44	.34
51414CR	7824T	TO-220/3	24V 1A pos. voltage reg. (LM340T-24) .....	.36	.34	.31
51238CR	78S40	DIP-16	1.25V-40V 1.5A switching regulator .....	1.35	1.08	.87
51457CR	7905T*	TO-220/3	5V 1A neg. voltage reg. (LM320T-5) .....	.42	.38	.36
51422CR	79L05	TO-92	5V 100mA neg. voltage regulator .....	.26	.22	.165
193797CR	79L05ACM	SOIC-8	-5V 100mA neg. voltage regulator .....	\$28.25	.21	.16
51449CR	79M05CT	TO-220/3	3-terminal negative regulator .....	.84	.62	.46
51481CR	7912CT*	TO-220/3	12V 1A neg. voltage reg. (LM320T-12) .....	.31	.27	.21
51431CR	79L12CZ	TO-92	12V 100mA neg. voltage regulator .....	.23	.21	.16
193800CR	79L12ACM	SOIC-8	-12V 100mA neg. voltage regulator .....	.52	.38	.28
51502CR	7915CT*	TO-220/3	15V 1A neg. voltage reg. (LM320T-15) .....	.32	.27	.22
194749CR	79L15ACZ	TO-92	15V 100mA neg. voltage regulator .....	.35	.30	.21
193818CR	79L15ACM	SOIC-8	-15V 100mA neg. voltage regulator .....	*	.19	.17

\*10 pieces included in Linear kit, below left \*\*20 pcs. in Linear series IC cabinet kit, below left


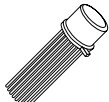
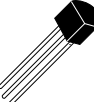
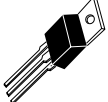









## Audio

Package (see pg 28)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
277624CR	INA103KP	DIP-16	Low noise/distortion instr. amp. ....	\$8.55	\$7.67	\$6.91
277632CR	INA103KU	SOIC-16	Low noise/distortion instr. amp. ....	8.55	7.67	6.91
278408CR	TPA112D	SOIC-8	150mW stereo audio power amplifier .....	.89	.75	.60
243678CR	OP275GP	DIP-8	Dual JFET audio op amp. ....	\$3.00	2.76	2.49
243660CR	OP275GS	SOIC-8	Dual JFET audio op amp. ....	\$4.58	1.19	.96
24037CR	LM380N	DIP-14	2-watt audio power amp. ....	.94	.87	.63
24088CX	LM383T	TO-220/5	7-watt audio high power amp. ....	5.95	5.39	4.95
24096CR	LM384N	DIP-14	5-watt audio amp. ....	1.45	1.17	.87
193623CR	LM386M-1	SOIC-8	Low volt. audio power amp. 250mW/12V ...	.31	.26	.195
24125CR	LM386N-1*	DIP-8	Low voltage audio amp. 250mW/6V .....	.48	.35	.29
24133CR	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V .....	.69	.59	.49
24483CR	LM725CN	DIP-8	Instrumentation op amplifier .....	\$2.75	2.39	1.84
279697CR	LM833D	SOIC-8	Dual audio op amp. ....	.41	.36	.32
120942CR	LM833N	DIP-8	Dual audio op amp. ....	.71	.71	.71
295718CR	LM1203N	DIP28	RGB video amp. ....	4.55	4.09	3.69
24942CR	MC1350P	DIP-8	Video IF amp (12V operation) .....	1.95	1.85	1.75
23270CR	LM1875T	TO-220/5	20-watt power audio amplifier .....	1.95	1.55	1.25
245534CR	LM1877M-9	SOIC-14	Dual audio power amplifier .....	1.39	1.04	.76
23288CR	LM1877N-9	DIP-14	Dual power audio amplifier .....	1.39	1.03	.75
245542CR	LM1881M	SOIC-8	Video synchronous separator .....	2.69	2.04	1.57
107140CR	LM1881N	DIP-8	Video synchronous separator .....	2.69	2.05	1.55
243547CR	LM1894N	DIP-14	DNR noise reduction .....	2.79	2.14	1.66
302519CR	LM1971M	SOIC-8	Audio attenuator with mute .....	2.35	1.79	1.65
302447CR	LM1972M	SOIC-20	2-channel audio attenuator .....	4.15	3.18	2.89



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

TO-3	TO-5/TO-52	TO-92	TO-220	TO-252	TO-263	DD	DIP	SOIC & SOP	SOT-23	SOT-223	MW	PLCC
												

## Audio (Continued)

New

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
<b>302421CR</b>	LM1972N	DIP-20	2-channel audio attenuator .....	<b>\$4.55</b>	<b>\$3.69</b>	<b>\$3.50</b>
<b>32897CR</b>	TDA2002V	TO-220/5	8-watt audio high power amp. ....	<b>3.55</b>	<b>3.18</b>	<b>2.87</b>
<b>275830CR</b>	OPA2134PA	DIP-8	High-performance audio op amp. ....	<b>2.39</b>	<b>1.93</b>	<b>1.58</b>
<b>275821CR</b>	OPA2134UA	SOIC-8	High-performance audio op amp. ....	<b>2.25</b>	<b>2.02</b>	<b>1.82</b>
<b>252013CR</b>	LM3875T	TO-220/11	56W high perf. audio power amp. ....	<b>5.19</b>	<b>4.11</b>	<b>3.70</b>
<b>126834CR</b>	LM3876T	TO-220/11	40W high perf. audio amp. with mute .....	<b>4.75</b>	<b>3.66</b>	<b>2.82</b>
<b>192516CR</b>	LM3886T	TO-220/11	68W high perf. audio amp. with mute .....	<b>5.19</b>	<b>4.35</b>	<b>3.32</b>
<b>302201CR</b>	LM4752T	TO-220	Stereo 11W audio power amp .....	<b>2.45</b>	<b>1.82</b>	<b>1.35</b>
<b>302199CR</b>	LM4860M	SOIC-16	1W audio power amp w/ shutdown mode .....	<b>1.59</b>	<b>1.19</b>	<b>.88</b>
<b>267047CR</b>	LM4864M	SOIC-8	725mW audio pwr amp w/ shutdown mode .....	<b>1.45</b>	<b>1.06</b>	<b>.78</b>
<b>302181CR</b>	LM4871M	SOIC-8	3W audio power amp w/ shutdown mode .....	<b>1.45</b>	<b>1.09</b>	<b>.80</b>

## Comparators

Package (see above)

\* Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	Pkg.	Description	1	10	100
<b>282061CR</b>	LM139D	SOP-14	Low pwr, low offset volt quad comparator .....	<b>.95</b>	<b>.80</b>	<b>.65</b>
<b>282087CR</b>	LM139J	CDIP-14	Low pwr, low offset volt quad comparator .....	<b>2.29</b>	<b>1.74</b>	<b>1.30</b>
<b>302501CR</b>	LM193H	TO-5	Dual low-power comparator .....	<b>4.65</b>	<b>3.55</b>	<b>2.78</b>
<b>302391CR</b>	LM211D	SOIC-8	Hi-speed, strobed diff. comparator .....	<b>.39</b>	<b>.315</b>	<b>.28</b>
<b>302383CR</b>	LM211P	DIP-8	Hi-speed, strobed diff. comparator .....	<b>.26</b>	<b>.23</b>	<b>.185</b>
<b>302367CR</b>	LM219D	SOIC-14	Dual high speed voltage comparator .....	<b>.85</b>	<b>.79</b>	<b>.74</b>
<b>302287CR</b>	LM239D	SOIC-14	Low-power, low-offset volt. quad comp. ....	<b>.28</b>	<b>.26</b>	<b>.245</b>
<b>212126CR</b>	LM239N	DIP-14	Low pwr. low offset volt quad comp. ....	<b>5.20</b>	<b>.20</b>	<b>.13</b>
<b>213188CR</b>	LM306N	DIP-8	Differential comparator w/ strobes ..	<b>5.69</b>	<b>.59</b>	<b>.50</b>
<b>193543CR</b>	LM311D	SOIC-8	Voltage comparator .....	<b>.215</b>	<b>.20</b>	<b>.185</b>
<b>23528CR</b>	LM311N*	DIP-8	Voltage comparator .....	<b>.35</b>	<b>.25</b>	<b>.19</b>
<b>251918CR</b>	LM311D	SOIC-8	Voltage comparator .....	<b>.76</b>	<b>.64</b>	<b>.52</b>
<b>239193CR</b>	LP311P	DIP-8	Differential comparator .....	<b>.76</b>	<b>.64</b>	<b>.52</b>
<b>245690CR</b>	LM319M	SOIC-14	High speed dual comparator .....	<b>5.80</b>	<b>.37</b>	<b>.32</b>
<b>23632CR</b>	LM319N	DIP-14	Hi-speed dual comparator .....	<b>.41</b>	<b>.36</b>	<b>.27</b>
<b>246537CR</b>	LM339AM	SOIC-14	Low pwr low offset volt. quad comparator ....	<b>.37</b>	<b>.315</b>	<b>.28</b>
<b>143888CR</b>	LM339AN	DIP-14	Low power quad comparator .....	<b>.29</b>	<b>.23</b>	<b>.193</b>
<b>193594CR</b>	LM339M	SOIC-14	Low pwr low offset volt quad comparator ....	<b>.27</b>	<b>.23</b>	<b>.185</b>
<b>23851CR</b>	LM339N**	DIP-14	Quad comparator .....	*	<b>.19</b>	<b>.165</b>
<b>251977CR</b>	LP339M	SOIC-14	Ultra low power quad comparator .....	<b>.74</b>	<b>.54</b>	<b>.40</b>
<b>21099CR</b>	LP339N	DIP-14	Quad low-power comparator .....	<b>.38</b>	<b>.365</b>	<b>.305</b>
<b>246633CR</b>	LM392M	SOIC-8	Low power op amp./volt. comparator .....	<b>1.09</b>	<b>1.01</b>	<b>.73</b>
<b>120900CR</b>	LM392N	DIP-8	Low power op amp./volt. comparator .....	<b>1.35</b>	<b>1.00</b>	<b>.74</b>
<b>246641CR</b>	LM393AM	SOIC-8	Low pwr low offset volt dual comparator .....	<b>.295</b>	<b>.25</b>	<b>.22</b>
<b>212177CR</b>	LM393AN	DIP-8	Low pwr low offset volt dual comparator .....	<b>5.27</b>	<b>.175</b>	<b>.135</b>
<b>193631CR</b>	LM393D	SOIC-8	Low pwr offset voltage dual comparator ....	<b>.22</b>	<b>.20</b>	<b>.18</b>
<b>24281CR</b>	LM393N*	DIP-8	Dual comparator .....	<b>.20</b>	<b>.18</b>	<b>.17</b>
<b>277093CR</b>	LMV393M	SOIC-8	Low volt, general purpose dual comparator ..	<b>.85</b>	<b>.63</b>	<b>.46</b>
<b>214041CR</b>	TL712CP	DIP-8	Differential comparator .....	<b>5.10</b>	<b>.99</b>	<b>.84</b>
<b>278256CR</b>	TL714CP	SOP-8	High speed differential comparator .....	<b>2.65</b>	<b>2.39</b>	<b>2.15</b>
<b>297844CR</b>	MAX902CSD	SOIC-14	Hi-speed, low-power precision volt. comp. ....	<b>9.45</b>	<b>7.63</b>	<b>6.87</b>
<b>291143CR</b>	LT1016CN-8	DIP-8	Fast precision comparator, 10ns .....	<b>4.99</b>	<b>3.55</b>	<b>3.45</b>
<b>280006CR</b>	TLV2354IN	DIP-14	LinCMOS quad low volt diff comparator .....	<b>2.85</b>	<b>2.56</b>	<b>2.31</b>
<b>245577CR</b>	LM2901M	SOIC-14	Low pwr low offset volt. quad comparator .....	<b>.30</b>	<b>.25</b>	<b>.20</b>
<b>23296CR</b>	LM2901N	DIP-14	Quad comparator .....	<b>.25</b>	<b>.21</b>	<b>.156</b>
<b>245614CR</b>	LM2903M	SOIC-14	Low power low offset volt. dual comp. ....	<b>.28</b>	<b>.25</b>	<b>.22</b>
<b>23309CR</b>	LM2903N	DIP-8	Low power low offset volt. dual comp. ....	<b>.31</b>	<b>.27</b>	<b>.21</b>
<b>278230CR</b>	TL3116CD	SOP-8	Ultra-fast, low pwr precision comparator .....	<b>1.89</b>	<b>1.68</b>	<b>1.51</b>
<b>278221CR</b>	TL3116ID	SOP-8	Ultra-fast, low pwr precision comparator .....	<b>1.99</b>	<b>1.80</b>	<b>1.62</b>
<b>245711CR</b>	LM3302D	SOIC-14	Low pwr low offset volt. quad comparator ....	<b>.49</b>	<b>.37</b>	<b>.285</b>
<b>107382CR</b>	LM3302N	DIP-14	Low pwr low offset volt. quad comparator ....	<b>.48</b>	<b>.43</b>	<b>.36</b>
<b>280137CR</b>	TLC3704CN	DIP-14	Quad uPwr LinCMOS volt comparator ....	<b>1.09</b>	<b>.92</b>	<b>.84</b>
<b>277202CR</b>	LMC6772AIM	SOIC-8	Dual uPwr rail-to-rail input comp w/open drain output .....	<b>2.75</b>	<b>2.10</b>	<b>1.63</b>

\*10 pcs. in Linear series IC cabinet kit, pg 29

\*\*20 pcs. in Linear series IC cabinet kit, pg 29

## Buffers

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
<b>23051CR</b>	LH0002CN	DIP-10	General purpose buffer .....	<b>\$12.25</b>	<b>\$10.25</b>	<b>\$7.95</b>
<b>277552CR</b>	BUF634P	DIP-8	250mA high speed buffer .....	<b>5.89</b>	<b>5.31</b>	<b>4.78</b>
<b>277544CR</b>	BUF634T	TO-220	250mA high speed buffer .....	<b>7.85</b>	<b>7.60</b>	<b>6.35</b>
<b>277579CR</b>	BUF634U	SOIC-8	250mA high speed buffer .....	<b>5.89</b>	<b>5.33</b>	<b>4.79</b>
<b>300249CR</b>	LT1010CN8	DIP-8	150mA high speed buffer .....	<b>4.35</b>	<b>4.25</b>	<b>4.05</b>

## Linear Op Amps

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
<b>193471CR</b>	OP07CD	SOIC-8	Very low offset single bipolar op amp. ....	<b>.62</b>	<b>.53</b>	<b>.40</b>
<b>27852CR</b>	OP07CP	DIP-8	Ultra-low-offset-voltage op amp. ....	<b>.61</b>	<b>.59</b>	<b>.56</b>
<b>252988CR</b>	OP07DP	DIP-8	Very low offset single bipolar op amp. ....	<b>.62</b>	<b>.52</b>	<b>.42</b>
<b>23106CR</b>	LM10CLN	DIP-8	Low voltage (1.1 volt) op amp. ....	<b>2.49</b>	<b>1.90</b>	<b>1.31</b>
<b>120715CR</b>	LM10CN	DIP-8	Op amp and voltage reference .....	<b>3.19</b>	<b>2.45</b>	<b>1.89</b>
<b>120723CR</b>	LM12CLK	TO-3/4	80W op amp. ....	<b>23.45</b>	<b>21.10</b>	<b>18.99</b>
<b>213090CR</b>	TL022CP	DIP-8	Dual low power op amp. ....	<b>5.06</b>	<b>.99</b>	<b>.84</b>
<b>252996CR</b>	OP27EZ	DIP-8	Low noise hi speed precision op amp. ....	<b>13.65</b>	<b>12.28</b>	<b>11.05</b>
<b>115300CR</b>	OP27EP	DIP-8	Low noise precision op amp. ....	<b>4.19</b>	<b>3.85</b>	<b>3.24</b>
<b>115318CR</b>	OP27GP	DIP-8	Low noise prec. op amp. (-40°C to 80°C) .....	<b>2.09</b>	<b>1.69</b>	<b>1.27</b>
<b>275805CR</b>	OPA27GP	DIP-8	Ultra-low noise, precision op amp. ....	<b>2.20</b>	<b>1.98</b>	<b>1.79</b>
<b>275784CR</b>	OPA27GU	DIP-8	Ultra-low noise, precision op amp. ....	<b>2.35</b>	<b>2.09</b>	<b>1.89</b>
<b>253032CR</b>	TL031CD	SOIC-8	Enhanced JFET low pwr low offset op amp. ....	<b>.78</b>	<b>.66</b>	<b>.53</b>
<b>213102CR</b>	TL031CP	DIP-8	Enhanced JFET low pwr low offset op amp. ....	<b>.71</b>	<b>.60</b>	<b>.45</b>
<b>279671CR</b>	TL032ACP	DIP-8	Enhanced JFET low pwr low offset op amp. ....	<b>1.85</b>	<b>1.67</b>	<b>1.51</b>
<b>253059CR</b>	TL032CD	SOIC-8	Enhanced JFET low pwr low offset op amp. ....	<b>1.02</b>	<b>.92</b>	<b>.74</b>
<b>213111CR</b>	TL032CP	DIP-8	Enhanced JFET low pwr low offset op amp. ....	<b>.74</b>	<b>.69</b>	<b>.64</b>
<b>253235CR</b>	TL034CD	SOIC-14	Enhanced JFET low pwr low offset op amp. ....	<b>1.12</b>	<b>.91</b>	<b>.69</b>
<b>214068CR</b>	TL034CN	DIP-14	Enhanced low pwr low offset op amp. ....	<b>1.05</b>	<b>.84</b>	<b>.64</b>
<b>275768CR</b>	OPA37GP	DIP-8	Ultra-low noise, precision op amp. ....	<b>2.45</b>	<b>2.19</b>	<b>1.97</b>
<b>275750CR</b>	OPA37GU	SOIC-8	Ultra-low noise, precision op amp. ....	<b>2.45</b>	<b>2.19</b>	<b>1.97</b>
<b>213129CR</b>	TL052ACP	DIP-8	Enhanced JFET low offset op amp. ....	<b>1.69</b>	<b>1.50</b>	<b>1.35</b>
<b>253243CR</b>	TL054ACD	SOIC-14	Enhanced JFET low offset op amp. ....	<b>5.39</b>	<b>4.83</b>	<b>4.35</b>
<b>213153CR</b>	TL054ACN	DIP-14	Enhanced JFET low offset op amp. ....	<b>4.49</b>	<b>3.82</b>	<b>2.85</b>
<b>213145CR</b>	TL054CN	DIP-14	Enhanced JFET low offset op amp. ....	<b>5.49</b>	<b>1.29</b>	<b>1.10</b>
<b>213137CR</b>	TL061ACP	DIP-8	Low power JFET input op amp. ....	<b>.61</b>	<b>.52</b>	<b>.39</b>
<b>242106CR</b>	TL061IP	DIP-8	Low power JFET op amp. ....	<b>.79</b>	<b>.62</b>	<b>.45</b>
<b>252283CR</b>	TL062ACD	SOIC-8	Low power JFET input op amp. ....	<b>5.74</b>	<b>.66</b>	<b>.50</b>
<b>33161CR</b>	TL062CP	DIP-8	Low power JFET op amp. (VCC 8-pin) .....	<b>.32</b>	<b>.27</b>	<b>.20</b>
<b>253104CR</b>	TL064BCD	SOIC-14	Low power JFET input op amp. ....	<b>.69</b>	<b>.58</b>	<b>.47</b>
<b>253139CR</b>	TL064BCN	DIP-14	Low power JFET input op amp. ....	<b>.69</b>	<b>.58</b>	<b>.47</b>
<b>33179CR</b>	TL064CN	DIP-14	Low power JFET input op amp. ....	<b>.56</b>	<b>.45</b>	<b>.345</b>
<b>213081CR</b>	TL071ACP	DIP-8	Low noise JFET input op amp. ....	<b>.59</b>	<b>.50</b>	<b>.375</b>
<b>33187CR</b>	TL071CP	DIP-8	Low noise JFET op amp. ....	<b>5.39</b>	<b>.27</b>	<b>.25</b>
<b>278264CR</b>	TLC071CD	SOIC-8	Wide-band, high-output drive op amp. ....	<b>1.09</b>	<b>.94</b>	<b>.75</b>
<b>278272CR</b>	TLC071IP	DIP-8	Wide-band, high-output drive op amp. ....	<b>1.19</b>	<b>.99</b>	<b>.80</b>
<b>213073CR</b>	TL072ACP	DIP-8	Low noise JFET input op amp. ....	<b>.53</b>	<b>.36</b>	<b>.26</b>
<b>253147CR</b>	TL072BCP	DIP-8	Low noise JFET input op amp. ....	<b>.70</b>	<b>.59</b>	<b>.48</b>
<b>193501CR</b>	TL072CD	SOIC-8	Low noise JFET dual op amp. ....	<b>.39</b>	<b>.33</b>	<b>.25</b>
<b>33195CR</b>	TL072CP*	DIP-8	Low noise JFET dual op amp. ....	<b>.26</b>	<b>.25</b>	<b>.24</b>
<b>278299CR</b>	TLC072CD	SOIC-8	Wide-band, high-output drive op amp. ....	<b>1.45</b>	<b>1.117</b>	<b>1.06</b>
<b>278281CR</b>	TLC072CP	DIP-8	Wide-band, high-output drive op amp. ....	<b>1.39</b>	<b>1.12</b>	<b>.84</b>
<b>213065CR</b>	TL074BCN	DIP-14	Low noise JFET input op amp. ....	<b>5.69</b>	<b>.151</b>	<b>.45</b>
<b>193519CR</b>	TL074CD	SOIC-8	Low noise JFET quad op amp. ....	<b>5.40</b>	<b>.38</b>	<b>.32</b>
<b>33216CR</b>	TL074CN*	DIP-14	Low noise JFET quad op amp. ....	<b>.48</b>	<b>.43</b>	<b>.345</b>
<b>278336CR</b>	TLC074CD	SOIC-14	Wide-band, high-output drive op amp. ....	<b>2.05</b>	<b>1.95</b>	<b>1.64</b>
<b>278328CR</b>	TLC074CN	DIP-14	Wide-band, high-output drive op amp. ....	<b>1.95</b>	<b>1.64</b>	<b>1.43</b>
<b>278352CR</b>	TLC080AIP	DIP-8	Wide-band, high-output drive op amp. ....	<b>5.29</b>	<b>1.19</b>	<b>.96</b>
<b>278344CR</b>	TLC080IP	DIP-8	Wide-band, high-output drive op amp. ....	<b>1.19</b>	<b>.96</b>	<b>.82</b>
<b>213057CR</b>	TL081ACP	DIP-8	JFET input op amp. ....	<b>.51</b>	<b>.45</b>	<b>.415</b>

\*10 pcs. in Linear series IC cabinet kit, pg 29

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Linear Op Amps (Continued)

				Package (see pg 30)		
Part No.	Cross Ref.	Pkg.	Description	1	10	100
253155CR	TL081CD	SOIC-8	JFET input op amp. ....	\$ .39	\$ .30	\$ .23
33232CR	TL081CP	DIP-8	JFET input op amp. ....	.31	.30	.26
214076CR	TL082ACP	DIP-8	JFET input op amp. ....	.30	.29	.28
253198CR	TL082BCP	DIP-8	JFET input op amp. ....	.56	.42	.36
193527CR	TL082CD	SOIC-8	JFET input dual op amp. ....	.30	.26	.19
33241CR	TL082CP*	DIP-8	JFET input dual op amp. ....	.53	.40	.30
214084CR	TL084ACN	DIP-14	JFET input op amp. ....	<del>\$.72</del> .49	.45	.38
253219CR	TL084BCD	SOIC-14	JFET input op amp. ....	.70	.63	.58
193535CR	TL084CD	SOIC-14	JFET input quad op amp. ....	.43	.41	.39
33267CR	TL084CN*	DIP-14	JFET input quad op amp. ....	.43	.40	.37
282626CR	LM124D	SOIC-14	Low power quad op amp. mil temp. ....	1.19	1.13	1.05
126818CR	LM124J	DIP-14	Low power quad op amp. mil temp. ....	<del>\$2.45</del> 2.19	1.69	1.31
276488CR	OPA124U	SOIC-8	Low noise precision DIFET op amp. ....	8.45	7.59	6.85
276496CR	OPA124UA	SOIC-8	Low noise precision DIFET op amp. ....	9.99	9.02	8.15
275856CR	OPA130UA	SOIC-8	Low power precision FET input op amp. ....	2.99	2.69	2.42
243686CR	OPA137PA	DIP-8	FET op amp. ....	1.75	1.57	1.25
243694CR	OPA137UA	SOIC-8	FET input op amp. ....	1.75	1.57	1.25
302480CR	LM158H	TO-5	Low power dual op amp. ....	4.39	3.39	2.61
302412CR	LM201AD	SOIC-8	Op amp industrial temp. ....	.52	.523	.47
302404CR	LM201AN	DIP-8	Op amp industrial temp. ....	.62	.58	.54
302341CR	LM224D	SOIC-14	Low power quad op amp industrial temp. ....	.28	.265	.245
302359CR	LM224J	DIP-14	Low power quad op amp industrial temp. ....	1.65	1.40	1.32
212118CR	LM224N	DIP-14	Low power quad op amp industrial temp. ....	<del>\$3.35</del> .28	.26	.22
275813CR	OPA234UA	SOIC-8	Low pwr precision snl supply op amp. ....	2.15	1.92	1.73
302261CR	LM258D	SOIC-8	Low power dual op amp industrial temp. ....	.26	.25	.23
212142CR	LM258N	DIP-8	Low power dual op amp industrial temp. ....	<del>\$2.27</del> .22	.20	.175
279742CR	TLC271CD	SOIC-8	LinCMOS programmable low pwr op amp. ....	.83	.63	.48
279734CR	TLC271CP	DIP-8	LinCMOS programmable low pwr op amp. ....	<del>\$6.50</del> .55	.50	.45
279806CR	TLC272CD	SOIC-8	LinCMOS precision dual op amp. ....	.79	.60	.45
143917CR	TLC272CP	DIP-8	LinCMOS precision dual op amp. ....	.72	.55	.41
280233CR	TLC272CD	SOIC-8	LinCMOS precision dual op amp. ....	.68	.57	.46
280225CR	TLC272LCP	DIP-8	LinCMOS precision dual op amp. ....	<del>\$1.70</del> .56	.51	.42
280188CR	TLC272MCD	SOIC-8	LinCMOS precision dual op amp. ....	.68	.57	.46
280170CR	TLC272MCP	DIP-8	LinCMOS precision dual op amp. ....	.68	.57	.46
301313CR	TLC274CN	DIP-14	LinCMOS precision quad op amp. ....	.89	.87	.83
242000CR	TLC274ACN	DIP-14	Quad precision op amp. ....	.79	.66	.53
242018CR	TLC274BCN	DIP-14	Quad precision op amp. ....	1.05	.95	.80
242026CR	TLC274CN	DIP-14	CMOS precision quad op amp. ....	.65	.60	.50
242034CR	TLC274IN	DIP-14	Quad CMOS op-amp. ....	.79	.66	.54
280217CR	TLC274CD	SOIC-14	LinCMOS precision quad op amp. ....	.81	.68	.55
280209CR	TLC274CN	DIP-14	LinCMOS precision quad op amp. ....	.60	.55	.47
280161CR	TLC274MCD	SOIC-14	LinCMOS precision quad op amp. ....	.81	.68	.55
280241CR	TLC277CP	DIP-8	LinCMOS precision dual op amp. ....	1.55	1.23	.98
280196CR	TLC277LCP	SOP-8	LinCMOS precision dual op amp. ....	1.39	1.24	1.12
280145CR	TLC277MCD	SOIC-8	LinCMOS precision dual op amp. ....	1.39	1.24	1.12
280153CR	TLC277MCP	DIP-8	LinCMOS precision dual op amp. ....	1.39	1.24	1.12
245665CR	LM301AH	TO-5/8	Operational amplifier ....	2.15	1.64	1.27
212151CR	LM301AN	DIP-8	Operational amplifier ....	.47	.42	.38
245673CR	LM308AH	TO-5/8	Precision op amp. ....	3.29	2.51	1.95
23464CR	LM308N*	DIP-8	Precision op amp. ....	4.49	3.99	3.49
245681CR	LM318M	SOIC-8	Precision high speed op amp. ....	1.15	.85	.64
23608CR	LM318N	DIP-8	Precision hi-speed op amp. ....	.59	.54	.48
245702CR	LM324AM	SOIC-14	Low power quad op amp. ....	.27	.23	.20
212169CR	LM324AN	DIP-14	Low power quad op amp. ....	.25	.23	.20
86721CR	LM324D	SOIC-14	Low power quad op amp. ....	<del>\$.29</del> .23	.20	.18
23683CR	LM324N**	DIP-14	Low power quad op amp. ....	.28	.24	.21
192559CR	LP324N	DIP-14	Micropower quad op amp. ....	.79	.59	.45
241963CR	LMV324M	SOIC-14	Low voltage, general purpose op amp. ....	<del>\$.91</del> .67	.60	.54
245438CR	LF347BD	SOIC-14	Quad JFET input op amp. (wide bandwidth) ....	1.35	1.18	.89
245420CR	LF347M	SOIC-14	Quad JFET input op amp. (wide bandwidth) ....	.68	.61	.48
22904CR	LF347N	DIP-14	Quad JFET input op amp. (wide band) ....	.36	.30	.28
275776CR	OPA347PA	DIP-8	Micropower rail-to-rail op amp. ....	1.25	1.06	.86
246570CR	LM348M	SOIC-14	Quad 741 op amp. ....	.77	.57	.42
23915CR	LM348N	DIP-14	Quad 741 op amp. (UPC4741C) ....	.37	.30	.21
22912CR	LF351N	DIP-8	BIFET op amp. ....	.39	.35	.29
245518CR	LF353D	SOIC-8	Dual JFET input op amp. (wide bandwidth) ....	.37	.30	.23

\*10 pcs. in Linear series IC cabinet kit, pg 29

## Linear Op Amps (Continued)

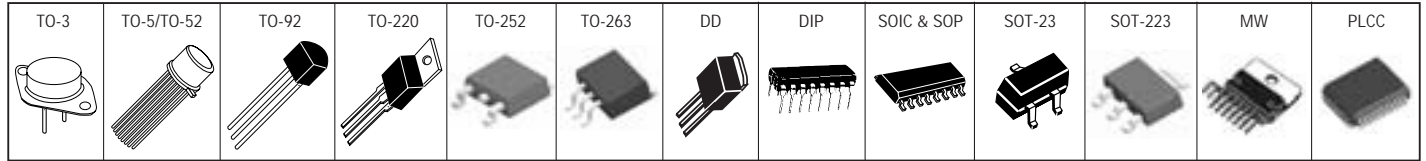
				Package (see pg 30)		
Part No.	Cross Ref.	Pkg.	Description	1	10	100
22939CR	LF353N*	DIP-8	Dual BIFET op amp. (comp. w/ TL082CP) ....	\$ .39	\$ .37	\$ .35
193607CR	LF356M	SOIC-8	JFET input op amp. (wide band) ....	.77	.56	.42
22971CR	LF356N*	DIP-8	JFET input op amp. (wide band) ....	.79	.67	.49
22998CR	LF357N	DIP-8	JFET input op amp. (wide band decomp.) ....	2.55	2.33	1.70
246588CR	LM358AM	SOIC-8	Low power dual op amp. ....	.23	.22	.20
120862CR	LM358AN	DIP-8	Low power dual op amp. (elect improv.) ....	<del>\$.45</del> .29	.25	.23
193615CR	LM358D	SOIC-8	Low power dual op amp. ....	<del>\$.23</del> .21	.18	.13
23966CR	LM358N*	DIP-8	Low power dual op amp. ....	.27	.23	.20
277106CR	LMV358M	SOIC-8	Low-volt rail-to-rail output dual op amp. ....	.85	.64	.46
276736CR	MAX410CPA	DIP-8	Sngl 28MHz low noise, low volt prec op amp. ....	5.29	4.20	3.79
119941CR	LF411ACN	DIP-8	Low offset low drift JFET input op amp. ....	<del>\$3.95</del> 3.65	3.65	3.65
23018CR	LF411CN*	DIP-8	Low offset drift JFET input op amp. ....	1.21	.90	.66
119950CR	LF412ACN	DIP-8	Dual JFET op-amp. ....	3.79	3.40	2.56
193640CR	LF412CD	SOIC-8	Low offset drift JFET input dual op amp. ....	<del>\$.79</del> .41	.37	.34
23026CR	LF412CN*	DIP-8	Low offset drift JFET input dual op amp. ....	1.03	.76	.56
106681CR	LF442CN	DIP-8	Dual low power JFET input op amp. ....	.98	.87	.67
119984CR	LF444ACN	DIP-14	Quad low power JFET input op amp. ....	2.75	2.44	1.89
119992CR	LF444CN	DIP-14	Quad low power JFET input op amp. ....	1.45	1.09	.79
276613CR	MAX474CSA	SOIC-8	Dual 10MHz single supply op amp. ....	5.09	4.03	3.63
276541CR	MAX492CPA	DIP-8	Dual upwr, snl supply rail-to-rail op amp. ....	5.09	4.05	3.63
276533CR	MAX492CSA	SOIC-8	Dual upwr, snl supply rail-to-rail op amp. ....	5.09	3.86	2.50
267266CR	LMC660CM	SOIC-14	CMOS quad operational amplifier ....	1.45	1.08	.81
143976CR	LMC660CN	DIP-14	CMOS quad operational amplifier ....	1.65	1.23	.91
120926CR	LM675T	TO-220/5	Power op amplifier ....	<del>\$6.95</del> 6.19	5.25	4.39
24491CR	LM733CN	DIP-14	Differential amplifier ....	1.15	.99	.89
24521CR	LM741CH	TO-5/8	Op amplifier ....	2.75	2.10	1.62
24539CR	LM741CN**	DIP-8	Op amplifier (ULN2151) ....	.29	.25	.19
24563CR	LM747CN	DIP-14	Dual 741 op amplifier ....	4.19	3.85	3.39
299938CR	LM747H	TO-100	Dual op amp. ....	3.79	3.29	3.07
277085CR	LMV824M	SOIC-14	5MHz quad low pwr, low volt, rail-to-rail op amp. ....	<del>\$1.69</del> 1.09	.97	.92
246668CR	LM837M	SOIC-14	Low noise quad operational amp. ....	1.02	.80	.75
143896CR	LM837N	DIP-14	Low-noise quad operational amp. ....	1.35	1.12	.82
239222CR	LT1001CN8	DIP-8	Precision op amplifier ....	<del>\$3.59</del> 3.25	2.75	2.50
239231CR	LT1002CN	DIP-14	Dual, matched precision op amplifier ....	4.75	3.22	2.74
239214CR	LT1006CN8	DIP-8	Precision op-amplifier ....	2.65	1.92	1.73
300231CR	LT1007CS8	SOIC-8	Low-noise, high speed precision op amp. ....	3.75	2.53	2.00
239273CR	LT1012CN8	DIP-8	Picoamp input curr, microvolt offset, low noise op amp. ....	4.35	3.32	2.57
239169CR	LT1013CP	DIP-8	Dual precision op amplifier ....	1.25	1.10	1.00
252005CR	LT1013DD	SOIC-8	Dual precision op amplifier ....	.79	.66	.54
239177CR	LT1014DN	DIP-14	Quad precision op amplifier ....	3.29	2.99	2.81
300193CR	LTC1050CN8	DIP-8	Precision zero-drift op amp w/ int. cap ....	3.65	2.48	2.09
300169CR	LTC1051CN8	DIP-8	Dual precision zero-drift op amp w/ int. cap ....	7.45	7.25	6.91
193682CR	LM1458M	SOIC-8	Dual op amplifier ....	.26	.22	.13
23131CR	LM1458N*	DIP-8	Dual op amplifier ....	.29	.26	.20
302498CR	LM1815N-NDDIP-14		Adaptive variable sensor amp ....	3.19	2.45	1.89
280129CR	TLE2021CP	DIP-8	Excalibur hi speed low pwr prec op amp. ....	1.09	.92	.74
280111CR	TLE2022CP	DIP-8	Excalibur hi speed low pwr prec op amp. ....	1.45	1.30	1.17
280102CR	TLE2024CDW	SOIC-16	Excalibur hi speed low pwr prec op amp. ....	2.85	2.56	2.29
280090CR	TLE2024CN	DIP-14	Excalibur hi speed low pwr prec op amp. ....	2.79	2.53	2.28
275848CR	OPA2131UJ	SOIC-8	General purpose FET-input op amp. ....	2.89	2.59	2.34
279996CR	TLV2450CP	DIP-8	Rail-to-rail I/O op amp. w/ shutdown ....	1.25	1.01	.75
279988CR	TLV2451CD	SOIC-8	Rail-to-rail I/O op amp. w/ shutdown ....	1.29	1.15	1.04
279970CR	TLV2451CP	DIP-8	Rail-to-rail I/O op amp. w/ shutdown ....	1.15	1.00	.90
272209CR	TLV2454CD	SOIC-14	Rail-to-rail I/O op amp. w/ shutdown ....	1.95	1.76	1.59
279961CR	TLV2454CN	DIP-14	Rail-to-rail I/O op amp. w/ shutdown ....	2.05	1.83	1.64
279945CR	TLV2474CN	DIP-14	2.8MHz rail-to-rail I/O hi drive op amp w/shdwn ....	2.05	1.74	1.57
279953CR	TLV2474IN	DIP-14	2.8MHz rail-to-rail I/O hi drive op amp w/shdwn ....	2.15	1.83	1.64
245606CR	LM2902M	SOIC-14	Low power quad op amplifier ....	.27	.24	.19
57007CR	LM2902N	DIP-14	Low power quad op amplifier ....	.25	.23	.22
245622CR	LM2904M	SOIC-8	Low power dual op amplifier ....	.25	.23	.20
121005CR	LM2904N	DIP-8	Low power dual op amplifier ....	.22	.20	.19
278141CR	THS3001CD	SOIC-8	420MHz hi speed curr. feedback amp. ....	5.89	5.32	4.79
12116CR	CA3080E	DIP-8	Op transconductance amp. (100135) ....	.55	.49	.34
12183CR	CA3130E	DIP-8	Bi-MOS op amplifier ....	.81	.78	.71
12204CR	CA3140E	DIP-8	Bi-MOS op amplifier ....	.59	.55	.51

\*10 pcs. in Linear series IC cabinet kit, pg 29

\*\*20 pcs. in Linear series IC cabinet kit, pg 29



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.



## Linear Op Amps (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
246721CR	MC3303D	SOIC-14	Quad op amplifier .....	\$ .43	\$ .32	\$ .25
212193CR	MC3403N	DIP-14	Quad bipolar op amplifier .....	\$ .45	.26	.24 .22
246617CR	LM3900D	SOIC-14	Quad amplifier .....	.75	.63	.52
24168CR	LM3900N	DIP-14	Quad amplifier .....	.77	.65	.53
239185CR	THS4031CD	SOIC-8	100MHz op-amp. ....	\$6-15	4.09	3.31 2.69
278150CR	THS4032CD	SOIC-8	100MHz low noise, hi speed amplifier .....	6.49	5.31	5.26
278176CR	THS4082CD	SOP-8	175MHz low noise, hi speed amplifier .....	5.69	5.14	4.63
278168CR	THS4082ID	SOP-8	175MHz low noise, hi speed amplifier .....	5.89	5.32	4.79
279929CR	TLV4112CD	SOIC-8	High output drive op. amp. w/ shutdown ...	1.95	1.58	1.35
29356CR	RC4136N	DIP-14	Quad op amp. (XR4136) .....	.74	.68	.62
275741CR	OPA4137PA	DIP-14	Low cost FET input op amp. ....	2.35	2.11	1.90
121072CR	LM4250CN	DIP-8	Programmable op amp. ....	1.39	1.39	1.39
251256CR	TLC4501ACD	SOIC-8	Precision CMOS rail-to-rail output op amp. ....	2.49	2.35	2.09
300767CR	TLC4501AID	SOIC-8	Precision CMOS rail-to-rail output op amp. ....	2.59	2.20	1.73
251264CR	TLC4501CD	SOIC-8	Precision CMOS rail-to-rail output op amp. ....	\$2-49	2.35	2.25 2.02
251281CR	TLC4502AID	SOIC-8	Precision CMOS rail-to-rail output op amp. ....	\$6-59	3.69	3.58 3.45
251272CR	TLC4502ID	SOIC-8	Precision CMOS rail-to-rail output op amp. ....	\$6-15	3.75	3.35 3.01
254861CR	KA4558	DIP-8	Dual op amp. ....	.41	.37	.33
251150CR	MC4558CD	SOIC-8	Wide bandwidth dual bipolar op amp. ....	.31	.29	.27
251125CR	MC4558CN	DIP-8	Wide bandwidth dual bipolar op amp. ....	.31	.29	.27
252970CR	NE5532AP	DIP-8	Dual low noise op amp. ....	.69	.58	.47
27385CR	NE5532N*	DIP-8	Dual low noise op amp. ....	.72	.55	.415
27406CR	NE5534	DIP-8	Low noise op amp. ....	.78	.66	.54
193746CR	NE5534D	SOIC-8	Low noise op amp. ....	.51	.47	.445
266950CR	LMC6035BP	BPA-8	Low pwr 2.7V singl supply CMOS op amp. ....	1.59	1.19	.87
301241CR	LMC6035IM	SOIC-8	Low pwr 2.7V single supply CMOS op amp. ....	2.05	1.89	1.85
267039CR	LMC6041IN	DIP-8	CMOS single micropower op amp. ....	\$2-35	1.69	1.25 .93
302121CR	LM6132AIM	SOIC-8	Dual low pwr rail-to-rail in/out op amp, 10MHz ..	3.59	2.76	2.14
302105CR	LM6132BIM	SOIC-8	Dual low pwr rail-to-rail in/out op amp, 10MHz ..	2.75	2.08	1.87
302113CR	LM6132BIN	DIP-8	Dual low pwr rail-to-rail in/out op amp, 10MHz ..	2.69	2.25	2.09
302009CR	LM6134AIM	SOIC-14	Quad low pwr rail-to-rail in/out op amp, 10MHz ..	3.85	3.19	2.95
302084CR	LM6134BIM	SOIC-14	Quad low pwr rail-to-rail in/out op amp, 10MHz ..	3.15	2.59	2.45
302076CR	LM6134BIN	DIP-14	Quad low pwr rail-to-rail in/out op amp, 10MHz ..	3.15	2.59	2.45
302068CR	LM6142AIM	SOIC-8	Dual rail-to-rail in/out op amp, 17MHz .....	4.65	3.85	3.62
301997CR	LM6144BIM	SOIC-14	Quad rail-to-rail in/out op amp, 17MHz .....	5.55	4.59	4.25
301989CR	LM6152ACM	SOIC-8	Dual rail-to-rail in/out op amp, 75MHz GBW .....	3.99	3.29	3.10
301891CR	LM6171AIM	SOIC-8	Hi speed, low pwr, low distortion volt. feedback amp ..	2.99	2.49	2.35
301882CR	LM6171BIM	SOIC-8	Hi speed, low pwr, low distortion volt feedback amp ..	2.59	2.14	2.01
301903CR	LM6171BIN	DIP-8	Hi speed, low pwr, low distortion volt feedback amp ..	2.59	1.97	1.53
301874CR	LM6181IN	DIP-8	100mA, 100MHz current feedback amp .....	2.79	2.19	1.79
267063CR	LMC6442AIM	SOIC-8	Dual $\mu$ pwr, singl-supply rail-to-rail op amp. ....	2.39	2.06	1.85
301436CR	LMC6442IM	SOIC-8	Dual micropower rail-to-rail output single supply op amp. ....	2.55	1.92	1.62
301364CR	LMC6442IN	DIP-8	Dual micropower rail-to-rail output single supply op amp. ....	2.75	2.05	1.75
267119CR	LMC6462AIM	SOIC-8	Dual $\mu$ pwr, singl-supply rail-to-rail I/O CMOS op amp. ....	2.40	2.16	1.95
126906CR	LMC6462AIN	DIP-8	$\mu$ pwr rail-to-rail I/O CMOS op amp. ....	2.59	2.25	2.02
126893CR	LMC6482AIM	DIP-8	CMOS dual rail-to-rail input/output op amp. ....	2.09	1.56	1.16
251168CR	LMC6482AIM	SOIC-8	CMOS dual rail-to-rail input/output op amp. ....	2.06	1.56	1.17
267127CR	LMC6482IM	SOIC-8	CMOS dual rail-to-rail I/O op amp. ....	1.69	1.27	.95
267223CR	LMC6482IN	DIP-8	CMOS dual rail-to-rail I/O op amp. ....	1.89	1.40	1.04
267240CR	LMC6484AIM	SOIC-14	CMOS quad rail-to-rail I/O op amp. ....	3.49	2.69	2.05
301356CR	LMC6484AIN	DIP-14	CMOS quad rail-to-rail in/out op amp. ....	4.09	3.13	2.42
267258CR	LMC6484IM	SOIC-14	CMOS quad rail-to-rail I/O op amp. ....	3.79	3.41	2.35
251871CR	LMC7101AIM5	SOT-23/5	Tiny low power op amp w/ rail-to-rail I/O .....	1.67	1.25	.93
251900CR	LMC7111AIN	DIP-8	Tiny CMOS op amp w/ rail-to-rail I/O .....	1.55	1.14	.84
301807CR	LM7171AIM	SOIC-8	Hi speed, hi output current volt feedback amp ...	2.89	2.25	1.98
301794CR	LM7171AIN	DIP-8	Hi speed, hi output current volt feedback amp ...	2.89	2.25	1.98
301751CR	LM7171BIM	SOIC-8	Hi speed, hi output current volt feedback amp ...	2.55	2.12	1.98
301823CR	LM7171BIN	DIP-8	Hi speed, hi output current volt feedback amp ...	2.55	1.96	1.75

\*10 pcs. in Linear series IC cabinet kit, pg 29

For complete listing of parts in the Linear Component Kit see page 29

## Linear Op Amps (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
301840CR	LM7121IM	SOIC-8	235MHz tiny low pwr volt feedback amp .....	\$2.59	\$1.95	\$1.49
301701CR	LM7301IM5	SOIC-8	Low pwr rail-to-rail in/pout op amp, 4MHz GBW ..	2.09	1.56	1.17
301655CR	LM7301IM5	SOT-23/5	Low pwr rail-to-rail in/pout op amp, 4MHz GBW ..	1.99	1.51	1.12
255257CR	AD8091AR	SOIC-8	Low cost high speed rail-to-rail amp. ....	1.35	1.20	1.08
255231CR	AD8092ARM	SOIC-8	Low cost high speed rail-to-rail amp. ....	\$4-65	1.45	1.30 1.18
255206CR	AD8510AR	SOIC-8	Prec. low noise low input bias curr. JFET input op amp. ....	2.45	2.18	1.96
279591CR	AD8515ART	SOT-23/5	1.8V low pwr CMOS rail-to-rail I/O op amp. ....	.98	.83	.67
192532CR	LM13700N	DIP-16	Dual op transcon. amp. w/ diodes & buffer .....	1.49	1.19	.79
277704CR	MC33202P	DIP-8	Low-voltage rail-to-rail op amp. ....	1.15	.97	.78
251117CR	MC34072D	SOIC-8	Single supply 3V-44V op amp. ....	.91	.85	.79
251061CR	MC34072P	DIP-8	Single supply 3V-44V op amp. ....	.91	.85	.79

## Linear Series

Part No.	Cross Ref.	Pkg.	Description	1	10	100
25751CR	MF10CN	DIP-20	General purpose dual active filter .....	\$3.09	\$2.37	\$1.83
16301CR	DS0026CN	DIP-8	Dual mos clk. driver (5MHz)(TC426CPA) .....	3.19	2.87	2.08
239281CR	DG201BDJ	DIP-16	Quad analog switch .....	\$1-47	1.39	1.07 .97
239290CR	DG202BDJ	DIP-16	Quad analog switch .....	2.75	2.47	2.23
239311CR	DG211BDJ	DIP-16	Quad analog switch .....	1.36	1.23	1.10
239329CR	DG211CJ	DIP-16	SPST quad channel analog switch .....	1.99	1.75	1.49
302332CR	LM231AN	DIP-8	Precision voltage to frequency converter ..	7.35	6.99	6.62
302316CR	LM231N	DIP-8	Precision voltage to frequency converter ..	5.29	4.25	3.84
302324CR	LM234Z-3	TO-92	3-terminal adjustable current source .....	2.55	1.95	1.50
302308CR	LM234Z-6	TO-92	3-terminal adjustable current source .....	1.65	1.22	.91
302295CR	LM236D	SOIC-8	2.5V voltage reference .....	.77	.72	.67
291080CR	LM285BYZ-1.2	TO-92	1.2V voltage reference diode, 1% tolerance ..	1.75	1.32	1.11
297801CR	LM285BYZ-2.5	TO-92	2.5V voltage reference diode .....	1.89	1.46	1.14
291055CR	LM285Z-1.2	TO-92	1.2V voltage reference, 20mA .....	.47	.382	.336
291071CR	LM285Z-2.5	TO-92	2.5V voltage reference, 10mA .....	.67	.64	.63
245403CR	L298N	MW-15	Dual full-bridge driver (MULTIWATT-15 pkg.) ..	2.95	2.55	2.35
245446CR	MAX301CPE	DIP-16	Precision dual hi speed analog switch .....	4.05	3.22	2.81
245456CR	MAX301CSE	SOIC-16	Precision dual hi speed analog switch .....	4.59	3.69	3.45
245462CR	MAX303CPE	DIP-16	Precision dual hi speed analog switch .....	8.79	6.91	6.22
277051CR	MAX303CSE	SOIC-16	Precision dual hi speed analog switch .....	10.65	8.36	7.53
297828CR	LM331AN	DIP-8	5V precision voltage-frequency converter .....	6.75	6.39	6.08
23721CR	LM331N	DIP-8	Prec. volt to freq. convtr. (150ppm/°C) .....	2.19	1.69	1.30
245729CR	LM334M	SOIC-8	3-terminal adjustable current source .....	1.12	.83	.61
23739CR	LM334Z	TO-92	Adjust current source .....	.72	.65	.47
291135CR	LM336BZ-2.5	TO-92	2.5V voltage reference diode .....	1.55	1.16	.87
297676CR	LM336BZ-5.0	TO-92	5V voltage reference diode .....	1.55	1.16	.87
193578CR	LM336M-2.5	SOIC-8	Precision 2.5V shunt regulator diode .....	1.39	1.19	.89
23771CR	LM336Z-2.5	TO-92	Voltage reference (2.5V) .....	\$1-57	.50	.46 .245
120871CR	LM385BZ-1.2	TO-92	Volt. ref. diode (1.2 $\pm$ 1.5%) .....	.51	.45	.39
120889CR	LM385BZ2.5	TO-92	Volt. ref. diode (2.5V $\pm$ 1.5%) .....	.51	.47	.42
24117CR	LM385Z-1.2	TO-92	Micropower volt. ref. diode (1.2V) .....	.49	.45	.40
24109CR	LM385Z-2.5	TO-92	Volt. ref. diode (2.5V $\pm$ 3%) .....	.57	.55	.395
23000CR	LF398N	DIP-8	Sample and hold circuit .....	\$1-59	1.09	1.00 .75
245454CR	DG403DY	SOIC-16	Improved dual hi speed analog switches ..	1.69	1.14	1.02
245489CR	DG405DJ	DIP-16	Improved dual hi speed analog switches ..	3.25	2.97	2.56
256541CR	DG406DJ	DIP-16	Imprvd 16-ch/dual 8-ch CMOS analog mux. ....	4.15	4.05	3.89
272161CR	DG407DJ	DIP-28	Imprvd 16-ch/dual 8-ch CMOS analog mux. ....	5.69	5.11	4.61
288227CR	DG407DN	PLCC-28	8-channel analog multiplexer .....	6.69	6.34	5.45
256532CR	DG408DJ	DIP-16	Imprvd 8-ch/dual 4-ch CMOS analog mux. ....	\$1-79	1.65	1.55 1.46
279582CR	DG408DY	SOIC-16	Imprvd 8-ch/dual 4-ch CMOS analog mux. ....	\$1-93	1.59	1.55 1.27
288243CR	DG409BN	DIP-16	4-channel analog multiplexer .....	4.25	4.09	3.87
288260CR	DG409DJ	DIP-16	4-channel analog multiplexer .....	1.65	1.35	1.27
279574CR	DG409DY	SOIC-16	Imprvd 8-ch/dual 4-ch CMOS analog mux. ....	1.55	1.47	1.27
243643CR	DG411DJ	DIP-16	Quad precision analog switch .....	1.75	1.65	1.50
243651CR	DG411DY	SOIC-16	Quad analog switch .....	1.69	1.66	1.59



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Linear Series (Continued)

Package (see pg 32)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
256516CR	DG412DJ	DIP-16	Improved quad SPST analog switch	\$1.83	\$1.61	\$1.06
245358CR	DG412DY	SOIC-16	Improved quad SPST analog switch	1.55	1.39	1.28
272137CR	DG413DY	SOIC-16	Improved quad SPST analog switch	1.49	1.43	1.37
279540CR	DG419DJ	DIP-8	Improved SPST/SPDT analog switch	<del>\$3.19</del> 1.95	1.73	1.69
246561CR	DG419DY	SOIC-8	Improved SPST/SPDT analog switch	1.19	1.12	1.08
333477CR	TL431CLP	TO-92	Program precision reference	.31	.265	.19
279558CR	DG441DJ	DIP-16	Improved quad SPST analog switch	1.65	1.48	1.22
256495CR	DG442DJ	DIP-16	Improved quad SPST analog switch	1.65	1.48	1.35
256508CR	DG442DY	SOIC-16	Improved quad SPST analog switch	1.19	1.114	1.10
256487CR	DG444DJ	DIP-16	Improved quad SPST analog switch	1.39	1.30	1.28
256479CR	DG444DY	SOIC-16	Improved quad SPST analog switch	1.25	1.19	1.09
256452CR	DG445DJ	DIP-16	Improved quad SPST analog switch	1.39	1.26	1.10
256444CR	DG445DY	SOIC-16	Improved quad SPST analog switch	1.39	1.30	1.24
33355CR	TL494CN	DIP-16	Control. ckt. pulse width modulated	<del>\$7.79</del> .43	.325	.265
288391CR	DG506AKN	DIP-28	1-channel analog multiplexer	10.49	9.99	9.49
86799CR	LM555CM	SOIC-8	Timer (NE555D)	<del>\$2.29</del> .245	.21	.185
27422CR	LM555CN**	DIP-8	Timer (MC1455F/NE555V)	.27	.23	.19
246676CR	LMC555CM	SOIC-8	CMOS 555 timer	.65	.47	.35
277691CR	LMC567CM	SOIC-8	Low-power tone decoder	1.65	1.29	.97
126797CR	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49	.44
34930CR	XRL555	DIP-8	Micro power 555 timer	.41	.37	.34
193658CR	LM556CM	SOIC-14	Dual 555 timer	.41	.35	.26
24328CR	LM556N*	DIP-14	Dual 555 timer	.77	.57	.42
27457CR	NE558N	DIP-16	Quad timer (NE558C)	.68	.62	.52
27473CR	NE564N	DIP-16	High frequency phase locked loop	1.95	1.49	1.05
24352CR	LM565N	DIP-14	Phased locked loop	1.59	1.20	.90
193666CR	LM567CM	SOIC-8	Tone decoder	<del>\$3.39</del> .35	.33	.29
24395CR	LM567CN	DIP-8	Tone decoder	.48	.45	.33
246650CR	LMC567CN	DIP-8	Tone decoder	1.45	1.18	1.05
243387CR	LMC568CN	DIP-8	Low power phase-locked loop	1.99	1.48	1.11
27490CR	NE571N	DIP-16	Companion, subscriber	3.29	2.99	2.69
287700CR	AD580JH	TO-52	2.5V voltage reference, high precision	3.45	2.89	2.42
287734CR	AD580LH	TO-52	2.5V voltage reference, high precision	9.49	8.05	6.91
287785CR	AD581KH	TO-53	10V volt ref., hi precision, 10mV tolerance	8.89	7.54	6.32
287814CR	AD584JH	TO-99	Prog. voltage reference, 30mV tolerance	6.85	5.65	4.72
288155CR	AD584KN	DIP-8	Prog. voltage reference, 11mV tolerance	10.69	10.15	9.63
115174CR	AD620AN	DIP-8	Low cost instrument amplifier	<del>\$47.95</del> 16.15	14.85	13.55
115182CR	AD633JN	DIP-8	Low cost analog multiplier	7.75	6.97	6.28
241912CR	TC646VOA	SOIC-8	3-5V, PWM fan controller	2.55	2.27	2.05
242131CR	TC648VPA	DIP-8	3-5V, PWM fan controller	2.59	2.32	2.08
276509CR	MAX660CSA	SOIC-8	CMOS monolithic voltage converter	6.65	5.06	3.42
25435CR	MC846P	DIP-14	Quad 2-input gate	3.95	2.95	2.25
287769CR	AD851JH	TO-53	10V voltage reference, high precision	6.75	6.39	6.05
0239257CR	LT1004CZ-1.2	TO-92	1.2V, micropower voltage reference	.77	.69	.63
239265CR	LT1004CZ-2.5	TO-92	2.5V, micropower voltage reference	.68	.52	.40
301541CR	LT1009CLP	TO-92	2.5V voltage reference diode	.62	.52	.42
300177CR	LT1009CZ	TO-92	2.5V voltage reference diode	2.15	1.45	1.25
300214CR	LTC1043CN	DIP-18	Dual prec. instrument switch cap. building blocks	4.65	3.15	2.75
300206CR	LTC1046CS8	SOIC-8	Inductorless 5V to -5V converter	4.79	3.22	2.79
278184CR	TL1451ACN	DIP-16	Dual pulse-width-modulation control circuit	1.79	1.45	1.11
118578CR	MC1495L	DIP-14	Linear four quadrant multiplier	9.95	8.95	8.05
23211CR	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P)	.65	.60	.54
34278CR	ULN2003AN*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.32	.28
193826CR	ULN2003AD	SOIC-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
34294CR	ULN2004AN	DIP-16	Hi-volt/curr. darl. trans. array (XR2204CP)	.345	.30	.25
241891CR	ML2035CP	DIP-8	Serial input prog. sine wave generator	7.89	6.15	5.53
241883CR	ML2036CP	DIP-14	5V, 50kHz prog. sine wave generator	16.65	14.96	13.47
34972CR	XR2206CP	DIP-16	Monolithic function generator	3.59	3.29	2.99
34999CR	XR2211N	DIP-14	FSK demodulator/tone decoder	1.79	1.59	1.39
280081CR	TLE2425CD	SOIC-8	Precision virtual ground	1.29	1.05	.80
280022CR	TLE2426CD	SOIC-8	Rail splitter precision virtual ground	1.19	.91	.82
280073CR	TLE2426CLP	TO-92	Rail splitter precision virtual ground	1.19	.91	.82
34315CR	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transistor array	.69	.59	.49
123625CR	LM2907N-8	DIP-8	Frequency to volt converter	<del>\$4.79</del> 1.55	1.39	.92
23317CR	LM2907N	DIP-14	Frequency to volt converter	<del>\$4.69</del> 1.39	1.11	.83
245631CR	LM2917M	SOIC-14	Frequency to voltage converter	1.99	1.49	1.40

\*10 pcs. in Linear series IC cabinet kit, pg 29

\*\*20 pcs. in Linear series IC cabinet kit, pg 29

## Linear Series (Continued)

Package (see pg 32)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23350CR	LM2917N-8	DIP-8	Frequency to volt converter	\$1.89	\$1.46	\$1.31
23341CR	LM2917N-14	DIP-14	Frequency to volt converter	1.79	1.49	1.29
278213CR	TL3016ID	SOIC-8	Ultra-fast, low pwr precision comparator	2.25	2.03	1.83
12079CR	CA3046N	DIP-14	NPN transistor array (ULN2046)	.45	.42	.37
12124CR	CA3081N	DIP-16	Common emitter NPN array (ULN2081)	.69	.59	.54
12159CR	CA3086N	DIP-14	Transistor array NPN (ULN2086)	.56	.52	.46
12247CR	CA3162E	DIP-16	Dual slope & rate analog/digital convert	6.82	6.14	5.53
31974CR	SG3524N	DIP-16	Regulating pulse width modulator	.53	.50	.42
235328CR	UC3525AN	DIP-8	SMPS Controller	<del>\$6.62</del> .57	.56	.50
243521CR	UC3842AN	DIP-8	30V, current mode PWM controller	.48	.44	.36
278926CR	UC3842D	SOIC-14	30V, current mode PWM controller	.87	.70	.53
243504CR	UC3843AN	DIP-8	30V, current mode PWM controller	.52	.45	.40
279443CR	UC3844D	SOIC-14	30V, current mode PWM controller	.44	.41	.38
243512CR	UC3844N	DIP-8	30V, current mode PWM controller	.49	.46	.42
243491CR	UC3845N	DIP-8	30V, current mode PWM controller	.46	.41	.36
279451CR	UC3846N	DIP-16	40V, current mode PWM controller	.97	.82	.65
243571CR	LM4040AIZ-10	TO-92	Precision micropower shunt volt. ref.	1.79	1.49	.88
243598CR	LM4040AIZ-2.5	TO-92	2.5V, precision micropower volt. ref.	1.09	.82	.60
243580CR	LM4040AIZ-5.0	TO-92	5.0V, precision micropower volt. ref.	1.79	1.68	1.11
243619CR	LM4040CIZ-2.5	TO-92	2.5V, precision micropower volt. ref.	1.09	.82	.60
243601CR	LM4040CIZ-5.0	TO-92	5.0V, precision micropower volt. ref.	1.09	.61	.43
302252CR	LM4040DIZ-2.5	TO-92	Precision micropower shunt volt. ref.	.99	.74	.54
302228CR	LM4040DIZ-5.0	TO-92	Precision micropower shunt volt. ref.	.99	.64	.39
25275CR	MC4044P	DIP-14	Frequency phase detector	9.99	7.49	5.25
29372CR	RC4151NB	DIP-8	Volt to freq. converter (XR4151)	1.29	1.19	1.09
297924CR	TPS6734IP	DIP-8	Fixed 12V, 120mA boost-converter supply	1.95	1.59	1.25
277173CR	LMC7211AIM	SOIC-8	Comp. w/ rail-to-rail input, push pull output	1.65	1.21	.90
277190CR	LMC7211BIM	SOIC-8	Comp. w/ rail-to-rail input, push pull output	1.65	1.21	.85
277114CR	LMC7221AIM	SOIC-8	Comp. w/ rail-to-rail input, open drain output	1.89	1.42	1.08
288163CR	AD7501KN	DIP-16	8-channel analog multiplexer	12.15	11.55	10.98
288180CR	AD7506JN	DIP-28	16-channel analog multiplexer	14.69	13.15	11.75
51140CR	75551PA	DIP-8	CMOS timer (LM555CN)	.33	.31	.29
51174CR	7660CPA	DIP-8	CMOS volt. convtr. (+5 to +5V) (M660AN)	.85	.75	.65
290301CR	ICL7660ACPA	DIP-8	1.5V - 12V volt converter, 10kHz, supp	1.35	1.00	.869
290335CR	ICL7660SCPA	DIP-8	1.5V - 12V volt converter, 10kHz, parr	1.59	1.16	1.06
241808CR	ICL7665SCPA	DIP-8	2-16V voltage detector	2.45	2.20	1.82
241816CR	ICL7673CPA	DIP-8	Auto battery backup switch, 2.5V to 15V	<del>\$4.29</del> 1.05	.93	.84
51879CR	8038CCPD	DIP-14	Precision wave form generator	3.29	3.15	2.92
25021CR	MC14411P	DIP-24	Bit rate frequency generator	<del>\$6.95</del> 4.95	3.83	3.45
241841CR	MC14467	DIP-16	Smoke detector	<del>\$4.69</del> 1.35	.83	.72
25064CR	MC14490P	DIP-16	Hex contact bounce eliminator	6.95	6.25	5.59
241832CR	MC145012	DIP-16	Smoke detector	<del>\$2.79</del> 2.19	1.53	1.38
246713CR	MC145151DW2	SOIC-28	Parallel input PLL freq. synthesizer	5.99	5.37	4.83
118586CR	MC145151P	DIP-28	Parallel input PLL freq. synthesizer	5.85	4.97	3.73

## Temperature Sensors

Package (see pg 32)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
107094CR	LM34CZ	TO-92	Prec. F temp. sensor (-40°F to +230°F)	\$4.90	\$4.52	\$4.08
193480CR	LM34DM	SOIC-8	Prec. F temp. sensor (-55°F to 300°F)	1.75	1.29	.97
155192CR	LM34DZ	TO-92	Prec. F temp. sensor (+32°F to +212°F)	1.99	1.67	1.23
302560CR	LM35CAZ	TO-92	Precision centigrade temp. sensor	5.19	4.14	3.55
193498CR	LM35DM	SOIC-8	Prec. C temp. sensor (-55°C to 150°C)	1.85	1.57	1.18
192217CR	LM35DT	TO-220/3	Prec. C temp. sensor (-55°C to 150°C)	2.55	1.92	1.44
107107CR	LM35CZ	TO-92	Prec. C temp. sensor (-40°C to 110°C)	<del>\$6.79</del> 5.35	4.10	3.16
155740CR	LM35DZ	TO-92	Prec. C temp. sensor (0°C to +100°C)	1.79	1.35	1.25
278361CR	TMP36FS	SOIC-8	Low voltage temperature sensor	.85	.77	.69
278395CR	TMP36GS	SOIC-8	Low voltage temperature sensor	.63	.54	.49
278387CR	TMP36GT9	TO-92	Low voltage temperature sensor	1.09	.92	.83
302164CR	LM50BIM3	SOT-23	Single supply centigrade temp. sensor	1.45	1.10	.82
302172CR	LM50CIM3	SOT-23	Single supply centigrade temp. sensor	.99	.74	.54
302148CR	LM56BIM	SOIC-8	Dual output low-power thermostat, dig-out	2.29	1.71	1.37
302130CR	LM56BIMM	MSOP-8	Dual output low-power thermostat, dig-out	3.39	3.21	3.05
302156CR	LM61BIM3	SOT-23	2.7V analog temperature sensor	1.29	1.12	1.05
302092CR	LM61CIZ	TO-92	2.7V analog temperature sensor	.95	.80	.75
301639CR	LM74CIBP-3	MICROSD-5	12-bit + sign digital temperature sensor	2.29	1.71	1.44
301604CR	LM74CIBP-5	MICROSD-5	12-bit + sign digital temperature sensor	2.29	1.71	1.44

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Temperature Sensors (Continued)

Package (see pg 32)

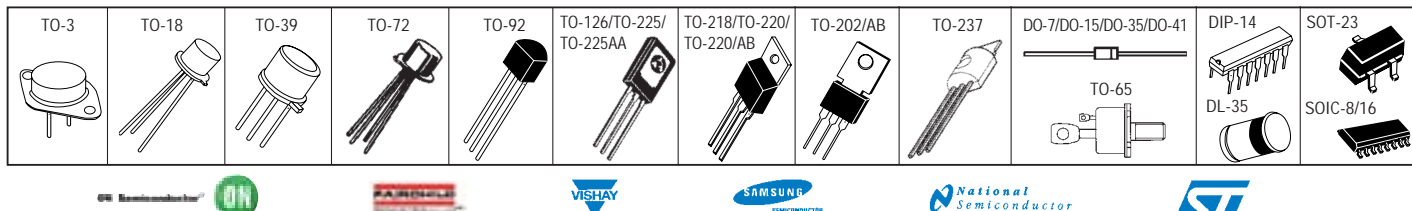
Part No.	Cross Ref.	Pkg.	Description	1	10	100
<b>301621CR</b>	LM74CIM-3	SOIC-8	12-bit + sign digital temperature sensor ..	\$1.89	\$1.42	\$1.19
<b>301583CR</b>	LM74CIM-5	SOIC-8	12-bit + sign digital temperature sensor ....	1.89	1.41	1.19
<b>301567CR</b>	LM77CIM-3	SOIC-8	9-bit + sign digital temp sensor/window comp ..	2.15	1.61	1.39
<b>301575CR</b>	LM77CIMM-3	MSOP-8	9-bit + sign digital temp sensor/window comp ..	2.65	2.55	2.45
282028CR	LM135H	TO-46	Precision temperature sensor .....	8.52	7.67	6.91
120820CR	LM335AZ	TO-92	Precision temperature sensor .....	<del>8.89</del> .81	.75	.71
193560CR	LM335M	SOIC-8	Precision temperature sensor .....	1.10	.94	.69
23755CR	LM335Z	TO-92	Volt mode temperature sensor .....	.67	.61	.44
241939CR	AD590JH	TO-52/3	Two terminal IC temperature transducer ..	5.95	4.55	3.84
<b>302551CR</b>	DS18S20	SOIC-8	High-precision 1-wire digital thermometer ..	4.49	3.56	3.21
<b>287371CR</b>	AD7814ARM	MSOP-8	10-bit digital temperature sensor .....	2.09	1.99	1.90

## Digital Potentiometers

Package (see pg 32)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
241744CR	MCP41010-I/P	DIP-8	10kΩ, 256 steps, SPI digital pot .....	\$1.59	\$1.30	\$1.25
241761CR	MCP41050-I/P	DIP-8	50kΩ, 256 steps, SPI digital pot .....	1.86	1.75	1.69
241787CR	MCP41100-I/P	DIP-8	100kΩ, 256 steps, SPI digital pot .....	1.75	1.55	1.39
241752CR	MCP42010-I/P	DIP-14	10kΩ, 256 steps, 2-ch, SPI digital pot .....	2.39	1.89	1.87
241779CR	MCP42050-I/P	DIP-14	50kΩ, 256 steps, 2-ch, SPI digital pot .....	2.39	2.00	1.90
<b>241795CR</b>	MCP42100-I/P	DIP-14	100kΩ, 256 steps, 2-ch, SPI digital pot .....	2.59	2.33	2.10

See pages 58 – 60 for our complete selection of Potentiometers.



## Transistors

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	Vceo Min.	( $\eta_{FE}$ @ Ic)	1	10	100	1000
214834CR	MMBTA05	♦	SOT-23	NPN	60	—	\$.05	.04	.025	
<b>297799CR</b>	MPSA05	♦	TO-92	NPN	60	100 @ .01A	*.075	.064	.034	
214842CR	MMBTA06	♦	SOT-23	NPN	80	100 @ .01A	*.05	.04	.03	
26462CR	MPSA06*	♦	TO-92	NPN	30	50 @ .01A	*.046	.042	.039	
<b>288930CR</b>	MPSH10	♦	TO-92	NPN	25	60 @ .004A	*.10	.059	.043	
214851CR	MMBTA13	♦	SOT-23	NPN	30	5k @ .01A	*.057	.039	.026	
26489CR	MPSA13*	♦	TO-92	NPN	30	5k @ .01A	*.075	.05	.037	
214869CR	MMBTA14	♦	SOT-23	NPN	30	10k @ .01A	*.04	.032	.024	
210593CR	MPSA14	♦	TO-92	NPN	30	20k @ .10A	*.05	.035	.025	
210681CR	MPSA18	♦	TO-92	NPN	45	500 @ .001A	*.16	.05	.031	
<b>288850CR</b>	MPSA29	♦	TO-92	NPN	100	10k @ .1A	*.10	.059	.044	
33021CR	TIP29A	♦	TO-220	NPN	60	15 @ .1A	.42	.36	.30	.21
<b>297781CR</b>	TIP29C	♦	TO-220	NPN	100	40 @ .2A	.25	.208	.195	.17
33030CR	TIP30A	♦	TO-220	PNP	60	15 @ .1A	.52	.49	.39	.35
<b>179346CR</b>	TIP30C	FSC	TO-220	PNP	100	15 @ .1A	<del>\$.35</del> .27	.25	.23	.22
33048CR	TIP31A*	♦	TO-220	NPN	60	10 @ .3A	.49	.39	.35	.29
179454CR	TIP31C	FSC	TO-220	NPN	100	10 @ .3A	.42	.37	.30	.21
33064CR	TIP32A*	♦	TO-220	PNP	60	10 @ .3A	.39	.36	.31	.22
181841CR	TIP32C	♦	TO-220	PNP	100	10 @ .3A	.29	.23	.18	.16
179371CR	TIP41C	FSC	TO-220	NPN	100	15 @ .3A	.47	.40	.34	.23
33081CR	TIP41A	♦	TO-220	NPN	60	15 @ .3A	.40	.36	.31	.26
214885CR	MMBTA42	♦	SOT-23	NPN	300	40 @ .01A	*.065	.057	.04	
178546CR	MPSA42	♦	TO-92	NPN	30	40 @ .03A	*.086	.061	.05	
33101CR	TIP42A	♦	TO-220	PNP	60	15 @ .3A	.49	.42	.35	.29
<b>139580CR</b>	TIP42C	♦	TO-220	PNP	100	15 @ .3A	.49	.45	.38	.21
179389CR	TIP42C	FSC	TO-220	PNP	100	15 @ .3A	.45	.41	.35	.26
<b>288614CR</b>	TIP47	♦	TO-220	NPN	250	30 @ .3A	.48	.357	.202	.166
<b>288631CR</b>	TIP48	♦	TO-220	NPN	300	30 @ .3A	.49	.291	.265	.238
214906CR	MMBTA55	♦	SOT-23	PNP	60	100 @ .01A	*.045	.036	.024	
214914CR	MMBTA56	♦	SOT-23	PNP	80	100 @ .01A	*.072	.058	.04	
210606CR	MPSA56	♦	TO-92	PNP	80	100 @ .10A	*.05	.04	.034	
214922CR	MMBTA63	♦	SOT-23	PNP	30	5k @ .01A	*.05	.04	.03	
<b>288921CR</b>	MPSA63	♦	TO-92	PNP	30	10k @ .1A	*.075	.042	.034	
214931CR	MMBTA64	♦	SOT-23	PNP	30	10k @ .01A	*.047	.04	.03	
120221CR	BPW77NA	♦	TO-18	NPN	70	—	1.59	1.55	1.49	1.39
<b>178554CR</b>	MPSA92	♦	TO-92	PNP	300	25 @ .003A	*.04	.036	.033	
214957CR	MMBTA92	♦	SOT-23	PNP	300	40 @ .01A	*.058	.047	.035	
214033CR	MPSA93	♦	TO-92	PNP	200	25 @ .03A	*.11	.076	.053	
277413CR	PN100	♦	TO-92	NPN	45	100 @ .15A	*.045	.032	.027	
<b>288420CR</b>	TIP100	♦	TO-220	NPN	60	1k @ .3A	.52	.43	.27	.22

♦ Manufacturer varies FSC = Fairchild Semiconductor

\* 10 pcs. in Transistor cabinet kit, see pg 35

## Transistors (Continued)

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	Vceo Min.	( $\eta_{FE}$ @ Ic)	1	10	100	1000
<b>297772CR</b>	TIP101	♦	TO-220	NPN	80	1k @ .3A	\$.60	.54	.46	.41
32977CR	TIP102*	♦	TO-220	NPN	100	1k @ .3A	.45	.39	.35	.29
179240CR	TIP102	FSC	TO-220	NPN	100	1k @ .3A	.53	.47	.45	.37
<b>288462CR</b>	TIP105	♦	TO-220	PNP	60	1k @ .3A	.41	.398	.319	.264
32985CR	TIP106	♦	TO-220	PNP	80	1k @ .3A	.59	.54	.49	.34
179258CR	TIP107	FSC	TO-220	PNP	100	1k @ .3A	.53	.47	.45	.37
<b>288471CR</b>	TIP110	♦	TO-220	NPN	60	1k @ .1A	.48	.457	.37	.23
<b>288500CR</b>	TIP111	♦	TO-220	NPN	80	1k @ .1A	.50	.45	.43	.363
<b>288518CR</b>	TIP112	♦	TO-220	NPN	100	1k @ .1A	.51	.44	.38	.23
<b>288526CR</b>	TIP115	♦	TO-220	PNP	60	1k @ .1A	.48	.37	.20	.17
<b>288542CR</b>	TIP117	♦	TO-220	PNP	100	1k @ .1A	.50	.375	.295	.245
32993CR	TIP120*	♦	TO-220	NPN	60	1k @ .3A	.49	.45	.39	.27
179291CR	TIP120	FSC	TO-220	NPN	60	1k @ .3A	.41	.37	.32	.27
<b>288585CR</b>	TIP121	♦	TO-220	NPN	80	1k @ .5A	.49	.375	.31	.27
120416CR	TIP122	♦	TO-220	NPN	100	1k @ .3A	.38	.32	.22	.22
179303CR	TIP122	FSC	TO-220	NPN	100	1k @ .3A	.42	.37	.34	.26
33013CR	TIP125	♦	TO-220	PNP	60	1k @ .3A	.49	.45	.29	.26
<b>288606CR</b>	TIP126	♦	TO-220	PNP	80	1k @ .5A	.49	.375	.285	.17
277886CR	MJE172	♦	TO-225	PNP	80	30 @ .50A	.32	.30	.29	.21
277341CR	PN200	♦	TO-92	PNP	45	100 @ .15A	*.09	.06	.045	
254772CR	BD237	♦	TO-126	NPN	80	40 @ .15A	.41	.40	.38	.28
254810CR	BC337	♦	TO-92	NPN	45	100 @ .10A	*.059	.042	.039	
211529CR	MJE340	♦	TO-225	NPN	300	30 @ .05A	.30	.27	.23	.172
211537CR	MJE350	♦	TO-225	PNP	300	30 @ .05A	.37	.33	.27	.20
255994CR	BU406	♦	TO-220	NPN	200	—	1.17	1.02	.89	.83
272031CR	BU407	♦	TO-220	NPN	150	—	.91	.81	.77	.61
256073CR	BD438	♦	TO-225	PNP	45	30 @ .01A	.39	.36	.34	.27
254801CR	BC547B	♦	TO-92	NPN	45	330 @ .002A	*.078	.075	.05	
<b>254799CR</b>	BC547C	♦	TO-92	NPN	45	600 @ .002A	*.08	.075	.05	
254781CR	BC548B	♦	TO-92	NPN	30	110 @ .002A	*.085	.075	.05	
256065CR	BD682	♦	TO-225	PNP	100	750 @ 1.5A	.39	.38	.36	.21
211545CR	MJE700	♦	TO-225	PNP	60	750 @ 1.5A	.38	.32	.29	.25
211553CR	MJE800	♦	TO-225	NPN	60	750 @ 1.5A	.26	.24	.21	.18
213920CR	MMBT918	♦	SOT-23	NPN	15	20 @ .003A	*.045	.036	.027	
194327CR	2N2102	♦	TO-39	NPN	65	40 @ .15A	.37	.33	.28	.26
38228CR	2N2219A	♦	TO-39	NPN	40	100 @ .15A	.41	.37	.31	.28
<b>94941CR</b>	MMBT2222	♦	SOT-23	NPN	30	100 @ .15A	.22	.045	.034	.028
26446CR	MPQ2222	♦	DIP-14	NPN	40	100 @ .15A	2.19	1.85	1.49	1.46
28628CR	PN2222**	♦	TO-92	NPN	30	100 @ .15A	*.065	.041	.025	
213938CR	MMBT2222A	♦	SOT-23	NPN	40	100 @ .15A	*.045	.035	.019	

♦ Manufacturer varies FSC = Fairchild Semiconductor

\* 10 pcs. in Transistor cabinet kit, see pg 35

\*\* 100 pcs. in Transistor cabinet kit, see pg 35

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Transistors (Continued)

Package (see pg 34)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	Vceo	Min.	( $\eta_{FE}$ @ Ic)	1	10	100	1000
213997CR	MMPO2222A	◆	SOIC-16	NPN	40	100 @ .15A	....	<b>\$.90</b>	<b>\$.79</b>	<b>\$.75</b>	<b>\$.47</b>
210673CR	MPS2222A	◆	TO-92	NPN	40	40 @ .50A	.....	*	.049	.045	.034
178511CR	PN2222A	◆	TO-92	NPN	40	100 @ .15A	.....	*	.12	.08	.04
38236CR	2N2222A*	◆	TO-18	NPN	40	100 @ .15A	.....	.39	.35	.29	.25
214658CR	MMBT2369	◆	SOT-23	PNP	25	60 @ .05A	.....	*	<b>.054</b>	<b>.043</b>	<b>.032</b>
213946CR	MMBT2369A	◆	SOT-23	NPN	15	40 @ .01A	.....	*	<b>.04</b>	<b>.032</b>	<b>.024</b>
26526CR	MPS2369	◆	TO-92	NPN	15	20 @ .10A	.....	*	<b>.09</b>	<b>.072</b>	<b>.054</b>
211334CR	MPS2369A	◆	TO-92	NPN	15	20 @ .10A	.....	*	<b>.071</b>	<b>.064</b>	<b>.059</b>
194378CR	2N2905A	◆	TO-39	PNP	60	100 @ .15A	.....	.45	.41	.39	.31
94959CR	MMBT2907	◆	SOT-23	PNP	40	100 @ .15A	.....	.22	.20	.16	<b>.12</b>
26454CR	MPQ2907	◆	DIP-14	PNP	40	100 @ .15A	....	2.19	1.85	1.35	.99
28644CR	PN2907**	◆	TO-92	PNP	40	100 @ .15A	.....	*	.125	.09	.045
213954CR	MMBT2907A	◆	SOT-23	PNP	60	100 @ .01A	.....	*	<b>.054</b>	<b>.043</b>	<b>.032</b>
214009CR	MMPO2907A	◆	SOIC-16	PNP	60	100 @ .01A	....	<b>\$.99</b>	<b>.79</b>	<b>.71</b>	<b>.43</b>
211342CR	MPS2907A	◆	TO-92	PNP	60	100 @ .15A	.....	*	.048	.04	.036
178520CR	PN2907A	◆	TO-92	PNP	60	100 @ .15A	.....	*	.07	.046	.033
38279CR	2N2907A*	◆	TO-18	PNP	60	100 @ .15A	.....	.36	.34	.31	.25
211377CR	TIP2955	◆	TO-218	PNP	60	5 @ .001A	...	<b>1.05</b>	<b>.94</b>	<b>.76</b>	<b>.70</b>
211502CR	MJ2955	◆	TO-3	PNP	60	20 @ 4A	.....	.69	.62	.56	.51
25831CR	MJE2955T	◆	TO-220	PNP	60	20 @ 4A	.....	.51	.44	.39	.37
38295CR	2N3053*	◆	TO-39	NPN	40	25 @ .15A	.....	.47	.43	.40	.37
211385CR	TIP3055	◆	TO-218	NPN	60	5 @ .001A	...	1.10	.95	.85	.79
38308CR	2N3055*	◆	TO-3	NPN	60	15 @ 10A	.....	.95	.85	.71	.57
211406CR	2N3055A	◆	TO-3	NPN	60	20 @ 4A	.....	1.20	1.16	1.11	1.01
25857CR	MJE3055T	◆	TO-220	NPN	60	20 @ 4A	.....	.48	.46	.41	.37
194415CR	2N3439	◆	TO-39	NPN	350	40 @ .02A	.....	.52	.47	.41	.34
211561CR	MPS3646	◆	TO-92	NPN	15	30 @ .003A	.....	*	.056	.051	.046
194458CR	2N3700	◆	TO-18	NPN	80	100 @ .15A	....	<b>\$.54</b>	<b>.42</b>	<b>.38</b>	<b>.35</b>
209242CR	2N3771	◆	TO-3	NPN	40	15 @ 15A	.....	1.89	1.75	1.55	1.39
38324CR	2N3772	◆	TO-3	NPN	40	15 @ 10A	.....	1.49	1.35	1.19	.99
140151CR	2N3773	◆	TO-3	NPN	140	15 @ 8A	.....	2.35	2.19	1.85	1.65
62279CR	2N3903	◆	TO-92	NPN	40	50 @ .01A	.....	*	<b>.025</b>	<b>.023</b>	<b>.021</b>
94967CR	MMBT3904	◆	SOT-23	NPN	40	100 @ .01A	.....	*	.066	.05	.032
211351CR	MPS3904	◆	TO-92	NPN	40	100 @ .001A	.....	*	<b>.09</b>	<b>.072</b>	<b>.049</b>
38359CR	2N3904**	◆	TO-92	NPN	40	100 @ .01A	.....	*	.075	.058	.035
178597CR	2N3904	FSC	TO-92	NPN	40	100 @ .01A	.....	*	.09	.06	.048
62287CR	2N3905	◆	TO-92	PNP	40	50 @ .01A	.....	*	.10	.074	.04
94975CR	MMBT3906	◆	SOT-23	PNP	40	100 @ .01A	.....	*	.045	.035	.024
214017CR	MMPO3906	◆	SOIC-16	PNP	40	75 @ .01A	....	1.35	1.25	1.17	.68
38375CR	2N3906**	◆	TO-92	PNP	40	100 @ .01A	.....	*	.05	.04	.03
178618CR	2N3906	FSC	TO-92	PNP	40	100 @ .01A	.....	*	.09	.08	.07
194466CR	2N4033	◆	TO-39	PNP	80	100 @ .10A	.....	.45	.40	.32	.24
38404CR	2N4123	◆	TO-92	NPN	30	25 @ .05A	.....	*	<b>.09</b>	<b>.072</b>	<b>.054</b>
214674CR	MMBT4124	◆	SOT-23	NPN	25	60 @ .05A	.....	*	<b>.04</b>	<b>.032</b>	<b>.024</b>
62295CR	2N4124	◆	TO-92	NPN	25	60 @ .05A	.....	*	.044	.034	.025
214682CR	MMBT4126	◆	SOT-23	PNP	25	60 @ .05A	.....	*	<b>.05</b>	<b>.042</b>	<b>.031</b>
214623CR	2N4126	◆	TO-92	PNP	25	60 @ .05A	.....	*	<b>.04</b>	<b>.032</b>	<b>.024</b>
253411CR	2N4400	◆	TO-92	NPN	40	50 @ .15A	.....	*	.042	.03	.027
214703CR	MMBT4401	◆	SOT-23	NPN	40	80 @ .01A	.....	*	<b>.044</b>	<b>.034</b>	<b>.021</b>
38421CR	2N4401*	◆	TO-92	NPN	40	100 @ .15A	.....	*	.07	.06	.05
214720CR	MMBT4403	◆	SOT-23	PNP	40	60 @ .001A	.....	*	<b>.045</b>	<b>.042</b>	<b>.032</b>
38447CR	2N4403*	◆	TO-92	PNP	40	100 @ .15A	.....	*	.08	.07	.05
211511CR	2N4410	◆	TO-92	NPN	80	60 @ .01A	.....	*	.088	.075	<b>.056</b>
27755CR	MJ4502	◆	TO-3	PNP	90	25 @ 7.5A	...	3.45	3.07	2.76	2.49
211449CR	2N4918	◆	TO-225	PNP	40	30 @ .50A	.....	.35	.33	.32	.31
211457CR	2N4919	◆	TO-225	PNP	60	30 @ .50A	.....	.55	.50	.45	.29
211465CR	2N4920	◆	TO-225	PNP	80	30 @ .50A	.....	.33	.315	.30	.29
211473CR	2N4921	◆	TO-225	NPN	40	30 @ .50A	....	<b>\$.41</b>	<b>.34</b>	<b>.31</b>	<b>.27</b>
211490CR	2N4923	◆	TO-225	NPN	80	30 @ .50A	.....	.35	.31	.26	.24
213962CR	MMBT5087	◆	SOT-23	PNP	50	250 @ .01A	.....	*	.042	.036	<b>.027</b>
210631CR	2N5087	◆	TO-92	PNP	50	250 @ .10A	.....	*	<b>.072</b>	<b>.035</b>	<b>.024</b>
213971CR	MMBT5088	◆	SOT-23	NPN	30	300 @ .01A	.....	*	<b>.061</b>	<b>.04</b>	<b>.023</b>
62316CR	2N5088	◆	TO-92	NPN	30	300 @ .10A	.....	*	.05	.049	.041

◆ Manufacturer varies FSC = Fairchild Semiconductor

\* 10 pcs. in Transistor cabinet kit, see right \*\* 100 pcs. in Transistor cabinet kit, see right

## Transistors (Continued)

Package (see pg 34)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	Vceo	Min.	( $\eta_{FE}$ @ Ic)	1	10	100	1000
214746CR	MMBT5089	◆	SOT-23	NPN	25	400 @ .01A	.....	*	<b>\$.034</b>	<b>\$.024</b>	<b>\$.016</b>
62324CR	2N5089	◆	TO-92	NPN	25	400 @ .10A	.....	*	.055	.038	.028
38480CR	PN5179	◆	TO-92	NPN	15	25 @ .003A	.....	*	<b>.12</b>	<b>.11</b>	<b>.10</b>
140373CR	2N5179	◆	TO-72	NPN	12	25 @ .003A	...	.65	.55	.49	.45
209251CR	2N5191	◆	TO-225	NPN	60	25 @ 1.5A	.....	.41	.37	.33	.30
209269CR	2N5194	◆	TO-225	PNP	60	25 @ 1.5A	.....	.34	.31	.29	.285
38501CR	2N5195	◆	TO-225	PNP	80	20 @ 1.5A	....	<b>\$.43</b>	<b>.39</b>	<b>.347</b>	<b>.312</b>
253930CR	2N5400	◆	TO-92	PNP	120	40 @ .010A	.....	*	.066	.058	.042
214754CR	MMBT5401	◆	SOT-23	PNP	150	40 @ .001A	.....	*	<b>.045</b>	<b>.036</b>	<b>.027</b>
210649CR	2N5401	◆	TO-92	PNP	150	60 @ .01A	.....	*	.067	.053	.042
214762CR	MMBT5550	◆	SOT-23	NPN	140	60 @ .01A	.....	*	<b>.057</b>	<b>.045</b>	<b>.026</b>
253569CR	2N5550	◆	TO-92	NPN	140	60 @ .010A	.....	*	.23	.15	.054
214771CR	MMBT5551	◆	SOT-23	NPN	140	80 @ .01A	.....	*	<b>.058</b>	<b>.047</b>	<b>.035</b>
210657CR	2N5551	◆	TO-92	NPN	160	80 @ .01A	.....	*	.15	.14	.105
209277CR	2N5657	◆	TO-126	NPN	350	30 @ .10A	.....	.30	.27	.25	.22
253438CR	2N5884	◆	TO-3	PNP	80	4 @ 25A	.....	2.35	2.18	1.63	1.56
254764CR	2N5886	◆	TO-3	NPN	80	20 @ 10A	.....	2.25	2.09	1.59	1.28

◆ Manufacturer varies

More transistors on next page

## Transistor Assortment Cabinet Kit

Includes:

20 drawer component cabinet (81701CR),  
20 clear plastic drawers (85454CR),  
20 clear dividers (85446CR), pg 120 and  
30 adhesive labels for drawers to identify parts in kit

SAVE \$7

10 each: 2N2222A, 2N2907A, 2N3053, 2N3055, 2N4401,  
2N4403, 2N5951, 2N7000, MJE3055T, MPF102,  
MPSA06, MPSA13, TIP31A, TIP32A, TIP102, TIP120  
100 each: 2N3904, 2N3906, PN2222, PN2907

Part No.	Description	Wt. (lbs.)	1	10
82595CR	560 pcs. (20 types) NPN, PNP transistor kit	5.1	\$82.95	\$74.65
130374CR	Refill for 82595CR (560 pcs.)	0.4	69.95	62.95

Thermalloy

IERC

## Heat Sinks

AAVID

Wakefield

Our TO-3/TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297CR which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 42622CR and 228005CR can be mounted vertically with solderable mounting tabs.



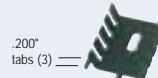
16512CR



189835CR



151546CR



42622CR/228005CR



40504CR



158051CR



70914CR



70658CR



129242CR

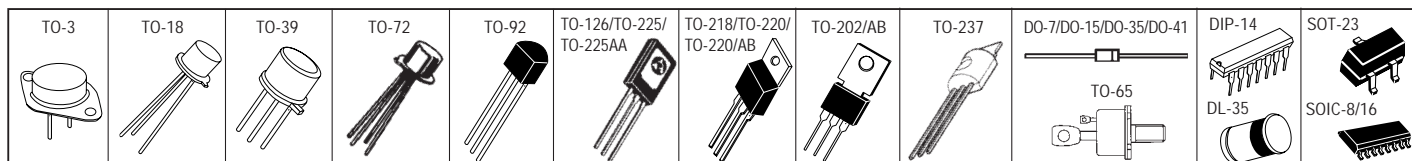


107297CR

Part No.	Cross Ref. No.	Type	Watts	Size (L"xW"xH")	1	10	100	1000
16512CR	DUDE4	TO-3	30.0	4.8x1.5x1.3	\$2.95	\$2.75	\$2.49	\$2.25
189835CR	635-5B2	TO-3	8.0	1.9x1.4x0.5	.95	.86	.68	<b>.51</b>
151546CR	635-125B2	TO-3	8.0	1.9x1.4x1.3	.99	.89	.67	.60
42622CR	563002B00000	TO-220	3.9	1.2x1.0x0.5	.35	.30	.28	.26
228005CR	BK-T220	TO-220	3.9	1.2x1.0x0.5	.35	.30	.28	.26
40504CR	291-H-36AB	TO-220	2.0	0.9x1.0x0.4	<b>.89</b>	<b>.80</b>	<b>.64</b>	<b>.48</b>
158051CR	577102B00000	TO-220	2.0	.75x.52x.38	.39	.35	.29	.25
70914CR	THM6106	TO-220	1.9	1.2x1.0x0.5	.35	.30	.28	.26
70658CR	THM6073	TO-220	1.6	0.8x0.7x0.4	.22	.19	.16	.13
129242CR	THM6106	TO-220	1.6	1.2x1.0x0.5	.49	.45	.39	.35
107297CR	PSC2-U (cup-style)	TO-220	1.5	0.8x1.0x0.4	<b>.49</b>	<b>.44</b>	<b>.35</b>	<b>.26</b>



Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.



## Transistors (Continued)

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	V <sub>ceo</sub> Min.	(h <sub>FE</sub> @ I <sub>c</sub> )	1	10	100	1000
194571CR	2N6042	♦	TO-220	PNP	100	1k @ 3A	\$.59	\$.47	\$.42	\$.35
194589CR	2N6045	♦	TO-220	NPN	100	1k @ 3A	.44	.40	.34	.31
194597CR	2N6052	♦	TO-3	PNP	100	750 @ 6A	1.63	1.47	1.32	1.19
194600CR	2N6059	♦	TO-3	NPN	100	750 @ 6A	1.59	1.55	1.36	1.12
255011CR	2N6292	♦	TO-220	NPN	70	30 @ 2A	.57	.52	.48	.41
213989CR	MMBT6427	♦	SOT-23	NPN	40	10k @ .01A	*.063	.057	.028	
255003CR	2N6427	♦	TO-92	NPN	40	10k @ .01A	.33	.22	.15	.035
288817CR	MPS6521	♦	TO-92	NPN	25	300 @ 0.002A	*.137	.114	.075	
288833CR	MPS6531	♦	TO-92	NPN	40	60 @ 0.01A	.21	.166	.076	.051
194618CR	2N6547	♦	TO-3	NPN	400	12 @ 5A	3.45	2.96	2.90	2.83
194626CR	2N6678	♦	TO-3	NPN	400	8 @ 15A	6.79	6.15	5.75	4.49
214025CR	MMPO6700	♦	SOIC-16	NP/PPNP	40	70 @ .01A	\$1.49	.85	.76	.61
140134CR	2N6725	♦	TO-237	NPN	50	25k @ .20A	.55	.45	.36	.29
277771CR	MJE13005	♦	TO-220	NPN	400	8 @ 2A	.80	.71	.54	.32
277798CR	MJE15029	♦	TO-220	PNP	120	40 @ 2A	.81	.75	.69	.64
277851CR	MJE15031	♦	TO-220	PNP	150	40 @ 2A	.89	.80	.72	.65

♦ Manufacturer varies

## J-FETs

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	BV <sub>GS</sub> @ I <sub>GU</sub> A	Loss (mW) @ V <sub>DS</sub>	1	10	100	1000
26403CR	MPF102*	♦	TO-92	N-Ch25 @ 1	20 @ 15	*.155	\$.11	\$.08		
211393CR	J111	♦	TO-92	N-Ch35 @ 1	20 @ 15	.20	.17	.12	.11	
140450CR	J112	♦	TO-92	N-Ch35 @ 1	5 @ 15	\$.29	*.11	.098	.089	
140142CR	J176	♦	TO-92	P-Ch30 @ 1	2 @ 25	.33	.29	.21	.17	
211414CR	J177	♦	TO-92	P-Ch30 @ 1	20 @ 15	.29	.22	.16	.11	
210622CR	2N3819	♦	TO-92	N-Ch25 @ 1	20 @ 15	*.085	.059	.055		
38341CR	2N3823	♦	TO-72	N-Ch30 @ 1	20 @ 15	1.35	1.19	1.05	.99	
38527CR	2N5951*	♦	TO-92	N-Ch30 @ 1	13 @ 15	.69	.64	.44	.39	

♦ Manufacturer varies \* 10 pcs. in Transistor cabinet kit, pg 35

## N-Channel/P-Channel MOSFETs

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	BV <sub>DS</sub>	Min. On-St. DS Current	1	10	100	1000
256014CR	BSS138	♦	SOT-23	N-Ch	50V	0.2A	*.11	\$.075	\$.055	
256031CR	BS170	♦	TO-92	N-Ch	60V	—	*.10	.07	.06	
256057CR	BS250	♦	TO-92	P-Ch	45V	—	.37	.34	.30	.20
209234CR	IRF510	♦	TO-220	N-Ch	100V	5.6A	.69	.59	.55	.49
209226CR	IRF520	♦	TO-220	N-Ch	100V	10.0A	.55	.48	.45	.40
209058CR	IRL520L	♦	TO-220	N-Ch	100V	10.0A	.77	.55	.46	.44
210500CR	IRF530	♦	TO-220	N-Ch	100V	14.0A	.66	.57	.52	.49
210518CR	IRF540	♦	TO-220	N-Ch	100V	27.0A	1.05	.95	.89	.75
210526CR	IRF620	♦	TO-220	N-Ch	200V	6.0A	.45	.42	.35	.32
210534CR	IRF630	♦	TO-220	N-Ch	200V	9.0A	.75	.65	.58	.43
210542CR	IRF640	♦	TO-220	N-Ch	200V	18.0A	.69	.65	.57	.49
210551CR	IRF730	♦	TO-220	N-Ch	400V	5.5A	.89	.75	.67	.63
210569CR	IRF740	♦	TO-220	N-Ch	400V	10.0A	1.25	1.10	.89	.80
210577CR	IRF820	♦	TO-220	N-Ch	500V	4.0A	.65	.59	.47	.35
210585CR	IRF830	♦	TO-220	N-Ch	500V	4.5A	.77	.70	.62	.58
184719CR	IRF840	♦	TO-220	N-Ch	500V	8.0A	1.49	1.29	.99	.89
279460CR	VN2222LL	♦	TO-92	N-Ch	60V	.75A	.23	.20	.16	.14
279486CR	VN2410L	♦	TO-92	N-Ch	240V	1.0A	.45	.405	.364	.328
279478CR	VN2406L	♦	TO-92	N-Ch	240V	1.0A	.44	.35	.27	.17
255020CR	SI4410DY	♦	SOIC-8	N-Ch	30V	20A	.89	.73	.52	.50

♦ Manufacturer varies FSC = Fairchild Semiconductor \* 10 pcs. in Transistor cabinet kit, pg 35

## N-Channel/P-Channel MOSFETs (Con't)

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Desc.	BV <sub>DS</sub>	Min. On-St. DS Current	1	10	100	1000
255038CR	SI4420DY	♦	SOIC-8	N-Ch	30V	30A	\$.179	\$.175	\$.169	\$.129
255046CR	SI4435DY	♦	SOIC-8	P-Ch	-30V	-40A	.85	.71	.52	.42
255054CR	SI4463DY	♦	SOIC-8	P-Ch	-20V	-30A	1.66	1.55	1.49	1.17
255062CR	SI4467DY	♦	SOIC-8	P-Ch	-12V	-20A	1.59	1.45	1.24	1.02
255071CR	SI4884DY	♦	SOIC-8	N-Ch	30V	40A	.59	.57	.55	.53
255089CR	SI4963DY	♦	SOIC-8	Dual P-Ch	-20V	-20A	1.45	1.32	1.19	1.09
253948CR	2N5457	♦	TO-92	N-Ch	-25V	—	.20	.18	.126	.102
253921CR	2N5458	♦	TO-92	N-Ch	25V	0.1A	.29	.23	.18	.16
253913CR	2N5460	♦	TO-92	P-Ch	40V	—	.34	.28	.22	.19
253905CR	2N5461	♦	TO-92	P-Ch	40V	—	.26	.19	.16	.13
253892CR	2N5462	♦	TO-92	P-Ch	40V	—	*.089	.081	.073	
253884CR	2N5484	♦	TO-92	N-Ch	-25V	—	*.13	.09	.052	
253585CR	2N5485	♦	TO-92	N-Ch	-25V	—	.23	.20	.18	.13
253577CR	2N5486	♦	TO-92	N-Ch	-25V	—	*.18	.15	.11	
253542CR	2N5639	♦	TO-92	N-Ch	30V	0.05A	.20	.175	.125	.065
178669CR	2N7000*	FSC	TO-92	N-Ch	60V	0.2A	.23	.19	.13	.11
119423CR	2N7000	♦	TO-92	N-Ch	60V	0.3A	*.11	.10	.09	
140169CR	2N7002	♦	SOT-23	N-Ch	60V	0.5A	*.08	.06	.033	

♦ Manufacturer varies FSC = Fairchild Semiconductor \* 10 pcs. in Transistor cabinet kit, pg 35

## Diodes

Package (see above)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Description	1	10	100	1000
140185CR	BAS16	♦	SOT-23	70PRV, 1A (Switching)	*.009	\$.065	\$.027	
254852CR	BAT54	♦	SOT-23	30PRV, 0.6A (Schottky)	*.16	.125	.09	
254844CR	BAT54A	♦	SOT-23	30PRV, 0.6A (Schottky)	*.08	.05	.043	
254836CR	BAT54C	♦	SOT-23	30PRV, 0.6A (Schottky)	*.08	.05	.043	
254828CR	BAT54S	♦	SOT-23	30PRV, 0.6A (Schottky)	.21	.19	.16	.11
140177CR	BAW56	♦	SOT-23	70PRV, 0.25A (Switching)	*.058	.034	.022	
140206CR	BAV70	♦	SOT-23	70PRV, 0.25A (Switching)	*.06	.035	.021	
140193CR	BAV99	♦	SOT-23	70PRV, 1A (Switching)	*.06	.05	.043	
35941CR	1N270*	♦	DO-7	80 PRV (Germanium)	.75	.69	.59	.49
179207CR	1N914	VSH	DO-35	100 PRV (Switching)	*.05	.025	.014	
36311CR	1N914**	♦	DO-35	75 PRV, .01A (Switching)	*.022	.018	.014	
35967CR	1N3600*	♦	DO-35	50 PRV, .20A (Switching)	*.045	.029	.019	
179215CR	1N4148	VSH	DO-35	100 PRV (Switching)	*.04	.03	.025	
36038CR	1N4148**	♦	DO-35	75 PRV, .01A (Switching)	*.036	.027	.023	
94908CR	LL4148	♦	DL-35	75 PRV @ 50μA, 10mA	†	†	.035	.016
151247CR	1N4148T	♦	DO-35	75 PRV, .01A (Switching)	#	#	#	.02

♦ Manufacturer varies VSH = Vishay † Prepackaged: order in increments of 100  
\* 10 pcs. in Diode/rectifier cabinet kit, pg 37 # Taped-ammo style: order in increments of 1000  
\*\* 100 pcs. in Diode/rectifier cabinet kit, pg 37

## Analog and RF Circuits

**Newnes Publishing** The author, one of the leading analog and RF engineers, uses illustrations and examples rather than mathematical theory to present a wealth of ideas and tips based on his experience. Essential reading for anyone designing analog circuits. Topics include RF amplifiers, oscillator design and behavior, waveform analysis, optoelectronics, filters, and op-amps. (299 pages, 1998)



Part No.	Description	Size	Wt. (lbs.)	Price
200150CR	Analog and RF Circuits	7.4" x 9.2"	1.1	\$49.95

Thousands of new ICs are in the pipeline for addition and not shown below. Call us to see if you can save 10-20%.

## Zener Diodes

Package (see pg 36)

Prepackaged: order in increments of 10, 100, 500 or 1000									
Part No.	Product No.	Mfr.	Pkg.	V <sub>Znom</sub>	Pwr Dissipation	10	100	500	1000
36290CR	1N751A*	♦	DO-35	5.1V	0.5W	.....\$0.06	.....\$0.52	.....\$0.045	.....\$0.22
288665CR	MMSZ4697	♦	SOD-123	10V	0.5W	......108	......059	......045	......045
178765CR	1N4730A	♦	DO-41	3.9V	1W	......069	......055	......045	......029
178773CR	1N4732A	VSH	DO-41	4.7V	1W	......07	......055	......045	......035
36089CR	1N4732A	♦	DO-41	4.7V	1W	......056	......05	......045	......041
178781CR	1N4733A	VSH	DO-41	5.1V	1W	......09	......06	......05	......04
36097CR	1N4733A*	♦	DO-41	5.1V	1W	......08	......065	......042	......026
178790CR	1N4734A	VSH	DO-41	5.6V	1W	......066	......052	......045	......039
36118CR	1N4734A	♦	DO-41	5.6V	1W	......064	......05	......042	......035
178802CR	1N4735A	VSH	DO-41	6.2V	1W	......055	......049	......04	......036
36126CR	1N4735A*	♦	DO-41	6.2V	1W	......061	......049	......041	......035
178811CR	1N4737A	♦	DO-41	7.5V	1W	......049	......045	......041	......036
178829CR	1N4738A	♦	DO-41	8.2V	1W	......066	......042	......034	......027
178837CR	1N4739A	♦	DO-41	9.1V	1W	......063	......042	......035	......032
178845CR	1N4740A	♦	DO-41	10V	1W	......045	......039	......032	......028
178853CR	1N4742A	VSH	DO-41	12V	1W	......063	......042	......039	......037
36169CR	1N4742A*	♦	DO-41	12V	1W	......07	......055	......045	......032
178861CR	1N4744A	VSH	DO-41	15V	1W	......063	......042	......039	......036
36185CR	1N4744A	♦	DO-41	15V	1W	......07	......055	......045	......032
178888CR	1N4747A	♦	DO-41	20V	1W	......05	......046	......041	......038
178896CR	1N4748A	♦	DO-41	22V	1W	......032	......029	......027	......024
178909CR	1N4749A	♦	DO-41	24V	1W	......063	......042	......039	......035
183450CR	1N4750A	♦	DO-41	27V	1W	......09	......081	......069	......051
179004CR	1N5225B	♦	DO-35	3.0V	0.5W	......033	......025	......017	......016
288702CR	MMSZ5226B	♦	SOD-123	3.3V	0.5W	......107	......067	......064	......045
179021CR	1N5229B	♦	DO-35	4.3V	0.5W	......031	......028	......025	......023
179039CR	1N5230B	♦	DO-35	4.7V	0.5W	......04	......035	......03	......027
179047CR	1N5231B	♦	DO-35	5.1V	0.5W	......04	......035	......03	......027
179055CR	1N5232B	♦	DO-35	5.6V	0.5W	......026	......023	......021	......019
179063CR	1N5234B	♦	DO-35	6.2V	0.5W	......04	......035	......029	......025
179098CR	1N5242B	♦	DO-35	12V	0.5W	......05	......042	......034	......025
179135CR	1N5250B	♦	DO-35	20V	0.5W	......027	......024	......022	......02
288788CR	MMSZ5257	♦	SOD-123	33V	0.5W	......116	......05	......044	......044
♦ Manufacturer varies		VSH = Vishay		* 10 pcs. in Diode/rectifier cabinet kit, right					

## Transient Voltage Suppressors

Package (see pg 36)

* Prepackaged: order in increments of 10, 100 or 1000									
Part No.	Product No.	Mfr.	Pkg.	Min. Brkdw Volt. (V <sub>br</sub> )	Stand-Off Voltage	1	10	100	1000
254879CR	SA6.0A	♦	DO-15	6.67	6.0	.....\$0.23	.....\$0.22	.....\$0.20	.....\$0.14
256663CR	P6KE6.8A	♦	DO-15	6.45	5.8	.....*	......19	......18	......16
256647CR	P6KE7.5A	♦	DO-15	7.13	6.4	.....*	......19	......17	......14
256639CR	P6KE9.1A	♦	DO-15	8.65	7.8	.....*	......19	......165	......14
288999CR	P6KE10A	♦	DO-15	9.5	8.55	......43	......332	......185	......122
288981CR	P6KE10CA	♦	DO-15	9.5	8.55	.....*	......183	......135	......12
289035CR	P6KE12A	♦	DO-15	11.4	10.2	......23	......199	......151	......141
289043CR	P6KE12CA	♦	DO-15	11.4	10.2	.....*	......183	......134	......119
256701CR	SA12A	♦	DO-15	13.3	12.0	......20	......19	......17	......13
254991CR	SA12CA	♦	DO-15	13.3	12.0	......30	......29	......27	......24
254983CR	SA13A	♦	DO-15	14.4	13.0	.....*	......16	......15	......14
254975CR	SA15A	♦	DO-15	16.7	15.0	......24	......23	......22	......19
255943CR	P6KE16A	♦	DO-15	15.2	13.6	......21	......20	......195	......13
255935CR	P6KE16CA	♦	DO-15	15.2	13.6	......25	......24	......225	......19
255919CR	P6KE18A	♦	DO-15	17.1	15.3	......23	......22	......20	......135
255901CR	P6KE18CA	♦	DO-15	17.1	15.3	......23	......22	......20	......136
255863CR	P6KE20A	♦	DO-15	19.0	17.1	.....*	......26	......25	......24
254967CR	SA20A	♦	DO-15	22.2	20.0	......20	......19	......18	......13
272102CR	P6KE22A	♦	DO-15	20.9	18.8	.....*	......13	......115	......105
255855CR	P6KE24A	♦	DO-15	22.8	20.5	......23	......22	......20	......135
255847CR	P6KE24CA	♦	DO-15	22.8	20.5	.....*	......17	......15	......12
254916CR	SA24A	♦	DO-15	26.7	24.0	......24	......23	......22	......19
255821CR	P6KE27A	♦	DO-15	25.7	23.1	......26	......25	......24	......17
255812CR	P6KE27CA	♦	DO-15	25.7	23.1	......24	......23	......22	......16
♦ Manufacturer varies									

## Transient Voltage Suppressors (Cont.)

Package (see pg 36)

* Prepackaged: order in increments of 10, 100 or 1000									
Part No.	Product No.	Mfr.	Pkg.	Min. Brkdw Volt. (V <sub>br</sub> )	Stand-Off Voltage	1	10	100	1000
254908CR	SA28A	♦	DO-15	31.1	28.0	.....\$0.24	.....\$0.23	.....\$0.22	.....\$0.19
255804CR	P6KE30A	♦	DO-15	28.5	25.6	......26	......25	......23	......19
254895CR	SA30A	♦	DO-15	33.3	30.0	......31	......30	......25	......18
255791CR	P6KE30CA	♦	DO-15	28.5	25.6	......26	......25	......23	......19
254887CR	SA30CA	♦	DO-15	33.3	30.0	......46	......37	......28	......17
255783CR	P6KE33A	♦	DO-15	31.4	28.2	......25	......24	......23	......18
255775CR	P6KE33CA	♦	DO-15	31.4	28.2	......25	......24	......23	......16
255767CR	P6KE36A	♦	DO-15	34.2	30.8	......23	......22	......20	......136
255759CR	P6KE39A	♦	DO-15	37.1	33.3	......26	......24	......23	......19
255741CR	P6KE39CA	♦	DO-15	37.1	33.3	.....*	......17	......16	......15
256698CR	P6KE47A	♦	DO-15	44.7	40.2	......20	......19	......18	......13
256680CR	P6KE47CA	♦	DO-15	44.7	40.2	.....*	......17	......155	......13
256671CR	P6KE51A	♦	DO-15	48.5	43.6	......24	......23	......185	......185
256655CR	P6KE68A	♦	DO-15	64.6	58.1	......25	......24	......23	......23
256621CR	P6KE91A	♦	DO-15	86.5	77.8	......26	......25	......23	......18
288956CR	P6KE100A	♦	DO-15	95	85.5	.....*	......175	......135	......12
255951CR	P6KE150CA	♦	DO-15	143.0	128.0	......36	......33	......28	......17
255927CR	P6KE180A	♦	DO-15	171.0	154.0	......26	......23	......15	......135
255871CR	P6KE200A	♦	DO-15	190.0	171.0	......38	......35	......33	......27
255839CR	P6KE250CA	♦	DO-15	237.0	214.0	......26	......23	......15	......14
♦ Manufacturer varies									

## Diac/Triacs/Quadac

Package (see pg 36)

* Prepackaged: order in increments of 10 or 100									
Part No.	Product No.	Mfr.	Pkg.	Type	Rating	1	10	100	
160098CR	HT-32	TEC	DO-35	Diac	27.37 V <sub>BO</sub> , 2A	.....*	.....\$0.15	.....\$0.125	
31819CR	SC146B	♦	TO-220	Triac	200 V <sub>DRM</sub> , 10A (2N6342)	1.29	1.15	.99	
31827CR	SC146M	♦	TO-220	Triac	600 V <sub>DRM</sub> , 10A (2N6344)	1.99	1.69	1.49	
160178CR	L401E3	TEC	TO-92	Triac	400 V <sub>DRM</sub> , 1A	......65	......56	......52	
160194CR	Q401E3	TEC	TO-92	Triac	400 V <sub>DRM</sub> , 1A	......59	......52	......47	
220468CR	L4004F31	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	.....\$1.09	......86	......76	......70
160186CR	L4004F51	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	......85	......76	......69	
220450CR	L4004L3	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 4A	.....1.25	.....1.09	......99	
160240CR	Q4004LT	TEC	TO-220AB	Quadac	400 V <sub>DRM</sub> , 4A	.....\$1.25	.....1.09	......99	......89
160207CR	Q4008L4	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 8A	.....1.19	.....1.06	......97	
220492CR	Q4008R4	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 8A	.....1.05	......97	......89	
139336CR	Q4015L5	♦	TO-220AB	Triac	400 V <sub>DRM</sub> , 15A	.....1.55	.....1.36	.....1.25	
160143CR	Q4025L6	TEC	TO-220AB	Triac	400 V <sub>DRM</sub> , 25A	.....2.59	.....2.29	.....1.91	
160215CR	Q6008L5	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 8A	.....1.35	.....1.18	.....1.07	
160231CR	Q6015L5	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 15A	.....1.79	.....1.63	.....1.49	
220513CR	Q6025P5	TEC	TO-3	Triac	600 V <sub>DRM</sub> , 25A	.....7.59	.....6.75	.....5.95	
220505CR	Q6025R6	TEC	TO-220AB	Triac	600 V <sub>DRM</sub> , 25A	.....2.25	.....2.05	.....1.85	
220521CR	Q6035P5	TEC	TO-3	Triac	600 V <sub>DRM</sub> , 35A	.....\$10.99	.....9.69	.....8.69	.....7.89
140425CR	2N6071A	♦	TO-225AA	Triac	200 V <sub>DRM</sub> , 4A	......29	......27	......24	
♦ Manufacturer varies		TEC = Teccor							

## Diode/Rectifier Assortment Cabinet Kit

420 pcs. (15 types) Diodes, Zener Diodes,  
Switching and Silicon Rectifiers

SAVE \$3

Includes:

- 20 drawer component cabinet (81701CR),
- 20 clear plastic drawers (85454CR),
- 20 clear dividers (85446CR), pg 120 and
- 30 adhesive labels for drawers to identify parts in kit

10 each: 1N270, 1N751A, 1N3600, 1N4001, 1N4007, 1N4733A,  
1N4735A, 1N4742A, 1N5404, 1N5408, C106B1, KBP04M

100 each: 1N914, 1N4004, 1N4148

Part No.	Description	Wt. (lbs.)	1	10
82587CR	420 pcs. (15 types) diode kit	5.0	.....\$39.95	.....\$35.95
130366CR	Refill for 82587CR (420 pcs.)	0.3	.....25.95	.....21.95

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## Silicon Controlled Rectifiers (SCR)

Package (pg 36)

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
14859CR	C38M	♦	TO-65	600 PRV, 35A (2N3899)	\$6.89	\$6.19	\$5.59	\$5.05
14736CR	C106B1*	♦	TO-202	200 PRV, 4A (2N6239)	†	.67	.54	.46
14752CR	C122B	♦	TO-220	200 PRV, 8A†	\$.89	.73	.66	.52
14761CR	C122M	♦	TO-220	600 PRV, 8A†	1.35	1.25	1.05	.69
220484CR	EC103B	TEC	TO-92	200 V <sub>DRM</sub> , 0.8A	.35	.32	.31	.30
160101CR	EC103D	TEC	TO-92	400 V <sub>DRM</sub> , 0.8A	.41	.35	.26	.29
220530CR	T106B1	TEC	TO-202AB	200 V <sub>DRM</sub> , 4A	.58	.49	.45	.37
110119CR	T106D1	TEC	TO-202AB	400 V <sub>DRM</sub> , 4A	.59	.51	.46	.36
160127CR	S401E	TEC	TO-92	400 V <sub>DRM</sub> , 1A	.38	.35	.32	.29
119802CR	2N5060	♦	TO-92	25 PRV, 0.8A	*	.19	.15	.12
211422CR	2N5061	♦	TO-92	60 PRV, 0.8A	*	.14	.12	.086
120070CR	2N5062	♦	TO-92	100 PRV, 0.8A	*	.19	.155	.145
211431CR	2N5064	♦	TO-92	200 PRV, 0.8A	*	.18	.153	.115
140417CR	2N6507	♦	TO-220AB	400 PRV, 25A	1.05	.99	.85	.75
220548CR	S4025L	TEC	TO-220AB	400 V <sub>DRM</sub> , 25A	1.65	1.47	1.34	1.04
160135CR	S6025L	TEC	TO-220AB	600 V <sub>DRM</sub> , 25A	1.75	1.59	1.43	1.22

† Isolated ♦ Manufacturer varies TEC = Teccor \*10 pcs. in Diode/rectifier cabinet kit, pg 37

## Rectifiers

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
177754CR	T6A05L	♦	T6L	50 PIV, 6A	\$.31	\$.28	\$.25	\$.23
177762CR	T6A10L	♦	T6L	100 PIV, 6A	.65	.55	.45	.39
177818CR	T6A100L	♦	T6L	1000 PIV, 6A	.65	.59	.49	.39
301444CR	MBR1060	♦	TO-220	60 V <sub>RRM</sub> , 10A	.63	.506	.42	.346
35924CR	1N1188	♦	DO-5	400 PRV, 35A	4.25	3.89	3.27	2.99
35975CR	1N4001*	♦	DO-41	50 PRV, 1A	*	.035	.025	.015
76961CR	1N4002	♦	DO-41	100 PRV, 1A	*	.039	.025	.018
177885CR	UF4002	♦	DO-41	100 PIV, 1A	*	.07	.063	.058
76970CR	1N4003	♦	DO-41	200 PRV, 1A	*	.035	.025	.015
35991CR	1N4004**	♦	DO-41	400 PRV, 1A	*	.04	.025	.02
76988CR	1N4005	♦	DO-41	600 PRV, 1A	*	.035	.025	.015
76966CR	1N4006	♦	DO-41	800 PRV, 1A	*	.035	.025	.015
177922CR	UF4006	♦	DO-41	800 PIV, 1A	*	.075	.068	.062
36011CR	1N4007*	♦	DO-41	1000 PRV, 1A	*	.038	.029	.02
227846CR	1N5059	♦	SOD57	200 V <sub>R</sub> , 2A	*	.12	.10	.085
227854CR	1N5060	♦	SOD57	400 V <sub>R</sub> , 2A	*	.11	.09	.08
227862CR	1N5061	♦	SOD57	600 V <sub>R</sub> , 2A	*	.135	.125	.095
227871CR	1N5062	♦	SOD57	800 V <sub>R</sub> , 2A	*	.16	.156	.115
214543CR	1N5399	♦	DO-15	1000 PRV, 1.5A	*	.02	.018	.016
77075CR	1N5400	♦	DO-27A	50 PRV, 3A	*	.10	.095	.07
36249CR	1N5401	♦	DO-27A	100 PIV, 3A	*	.075	.065	.051
77083CR	1N5402	♦	DO-27A	200 PRV, 3A	*	.085	.075	.056
36265CR	1N5404*	♦	DO-27A	400 PRV, 3A	*	.10	.09	.069
36273CR	1N5408*	♦	DO-27A	1000 PRV, 3A	*	.15	.11	.08
177949CR	1N5817	♦	DO-204AL	20 PIV, 1A	*	.11	.09	.069
177957CR	1N5818	♦	DO-204AL	30 PIV, 1A	*	.09	.08	.055
177965CR	1N5819	♦	DO-204AL	40 PIV, 1A	*	.10	.085	.075
177973CR	1N5820	♦	DO-201AD	20 PIV, 3A	*	.13	.12	.19
177981CR	1N5821	♦	DO-201AD	30 PIV, 3A	*	.19	.16	.15
177990CR	1N5822	♦	DO-201AD	40 PIV, 3A	*	.23	.19	.15

♦ Manufacturer varies \*10 pcs./ \*\*100 pcs. in Diode/rectifier cabinet kit, pg 37

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Corporate Customers

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## Bridge Rectifiers

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Mfr.	Pkg.	Rating	1	10	100	1000
178001CR	DF005M	♦	DF	50 PIV, 1A	\$.35	\$.30	\$.22	\$.15
255960CR	DF005S	♦	SDIP-4	50 PIV, 1A	.30	.26	.22	.18
103000CR	DF01M	♦	DF	100 PIV, 1A	.30	.26	.21	.17
103042CR	DF02M	♦	DF	200 PIV, 1A	.35	.30	.22	.17
102971CR	DF04M	♦	DF	400 PIV, 1A	.45	.41	.35	.31
103034CR	DF06M	♦	DF	600 PIV, 1A	.32	.30	.25	.21
103026CR	DF10M	♦	DF	1000 PIV, 1A	.30	.27	.23	.15
256559CR	DF10S	♦	SDIP-4	1000 PIV, 1A	.31	.26	.23	.19
256604CR	DF01S	♦	SDIP-4	100 PIV, 1.5A	.29	.23	.21	.18
256591CR	DF02S	♦	SDIP-4	200 PIV, 1.5A	.30	.25	.22	.16
256583CR	DF04S	♦	SDIP-4	400 PIV, 1.5A	.32	.28	.24	.20
256575CR	DF08M	♦	DIP-4	800 PIV, 1.5A	.35	.30	.25	.18
256567CR	DF08S	♦	SDIP-4	800 PIV, 1.5A	.29	.27	.22	.20
145429CR	KBP02M	♦	KBP	200 PIV, 1.5A	.40	.35	.29	.19
119562CR	KBP04M*	♦	KBP	400 PIV, 1.5A	.45	.32	.23	.19
279494CR	W005G	♦	WOG	50 PIV, 1.5A	.35	.29	.26	.165
103018CR	W02G	♦	WOG	200 PIV, 1.5A	.38	.32	.28	.19
102980CR	W04G	♦	WOG	400 PIV, 1.5A	.36	.27	.18	.17
102998CR	W06G	♦	WOG	600 PIV, 1.5A	.40	.35	.29	.20
179469CR	W08G	♦	WOG	800 PIV, 1.5A	.35	.32	.26	.18
279515CR	W10G	♦	WOG	1000 PIV, 1.5A	.34	.30	.21	.18
178124CR	W005M	♦	WOM	50 PIV, 1.5A	.38	.33	.28	.19
178132CR	W01M	♦	WOM	100 PIV, 1.5A	*	.15	.13	.12
178141CR	W02M	♦	WOM	200 PIV, 1.5A	.38	.33	.28	.19
178175CR	W08M	♦	WOM	800 PIV, 1.5A	*	.15	.13	.21
178183CR	BR805D	♦	BR8D	50 PIV, 2A	.55	.49	.39	.35
178204CR	BR82D	♦	BR8D	200 PIV, 2A	.85	.77	.69	.69
178247CR	BR810D	♦	BR8D	1000 PIV, 2A	.59	.49	.39	.35
253260CR	2KBP06M	♦	KBP	600 PIV, 2A	.41	.35	.29	.24
253286CR	2KBP10M	♦	KBP	1000 PIV, 2A	.40	.35	.29	.24
179477CR	GBPC25-01	♦	GBPC	100 PIV, 25A	2.49	2.05	1.65	1.43
179485CR	GBPC25-02	♦	GBPC	200 PIV, 25A	3.25	2.69	2.25	1.65
178280CR	MB254	♦	MB35	400 PIV, 25A	2.55	2.41	2.23	1.55
178335CR	TB252	♦	TB35	200 PIV, 25A	2.10	1.85	1.69	1.50
25574CR	MDA990-3	♦	179-01	200 PIV, 30A	3.99	3.45	2.99	1.85
25591CR	MDA990-6	♦	179-01	600 PIV, 30A	4.59	4.29	3.99	3.59
299882CR	GBPC1204	♦	GBPC	400 V <sub>RRM</sub> , 12A	2.89	2.52	1.35	1.15
299874CR	GBPC1206	♦	GBPC	600 V <sub>RRM</sub> , 12A	3.15	2.67	1.15	1.09
299866CR	GBPC1206W	♦	GBPCWire	600 V <sub>RRM</sub> , 12A	1.89	1.55	1.10	1.04
178431CR	MB358	♦	MB35	800 PIV, 35A	3.59	3.29	2.75	1.85
178440CR	TB3505	♦	TB35	50 PIV, 35A	\$.359	1.67	1.52	1.38
178503CR	TB3510	♦	TB35	1000 PIV, 35A	2.99	2.49	2.09	1.96

♦ Manufacturer varies \*10 pcs. in Diode/rectifier cabinet kit, pg 37

† DF/KBP/WOG/WOM/179-01 – plastic case; GBPC/TB35 – plastic case, metal base; MB35 – metal case

## Troubleshooting &amp; Repairing Consumer Electronics without a Schematic

**TAB Publishing** Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

• Size: 7.4" x 9.3" • Weight: 1.1 lbs.

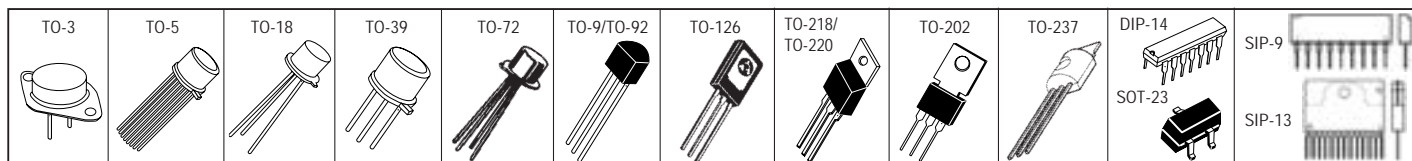


Part No.	Description	Price
136080CR	Troubleshooting & Repairing	\$24.95

For NTE Replacement Transistors, Diodes and Rectifiers  
see pages 41 - 43.



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## Integrated Circuits

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
260161CR	NTE778A	DIP-8	Dual operational amplifier	\$2.38 \$2.29 \$2.21
260179CR	NTE823	DIP-8	Low voltage audio amplifier	1.52 1.49 1.45
275442CR	NTE824	DIP-8	Stereo preamp.	2.75 2.62 2.49
275451CR	NTE834	DIP-14	Quad comparator	1.89 1.81 1.65
275469CR	NTE857M	DIP-8	JFET input op amp.	2.95 2.68 2.22
260187CR	NTE858M	DIP-8	Dual low noise JFET input op amp.	2.62 2.41 2.15
260195CR	NTE859	DIP-14	Quad low noise JFET input op amp.	3.73 3.55 3.39
275485CR	NTE891M	DIP-8	Dual audio op amplifier	1.49 1.47 1.44
275522CR	NTE916	DIP-16	NPN transistor array	4.25 3.92 3.59
275557CR	NTE928M	DIP-8	Dual low power op amplifier	2.29 2.05 1.82
275573CR	NTE937M	DIP-8	JFET input op amplifier	2.85 2.55 2.27
275581CR	NTE938M	DIP-8	Precision op amplifier	9.49 9.02 8.56
260216CR	NTE941	TO-5/8	Operational amplifier	5.85 5.69 5.55
260224CR	NTE941M	DIP-8	Operational amplifier	.92 .88 .85
275602CR	NTE941SM	DIP-8	General purpose op amplifier	1.15 1.09 1.04
275611CR	NTE943M	DIP-8	Dual comparator, low power & offset	3.09 2.95 2.67
260232CR	NTE947D	DIP-14	Dual operational amplifier	4.93 4.58 4.07
275629CR	NTE948	DIP-14	Quad op amplifier	3.09 2.78 2.48
260241CR	NTE955M	DIP-8	Timing circuit	1.29 1.25 1.20
275645CR	NTE955MC	DIP-8	CMOS, mono timer	1.35 1.32 1.29
275696CR	NTE975	DIP-8	Op amplifier	2.45 2.33 2.20
275717CR	NTE978	DIP-14	Dual timer	2.49 2.29 1.88
260347CR	NTE987	DIP-14	Quad low power operational amplifier	1.96 1.85 1.80
275733CR	NTE997	DIP-14	Quad op amplifier	3.35 2.85 2.54
260355CR	NTE999	TO-92	Adjustable precision shunt regulator	1.02 .99 .95
272292CR	NTE1232	TO-220/5	Amp, audio power, 8w, 5-p	6.05 5.79 5.52
272305CR	NTE1289	DIP-12	TV vertical deflection system	11.05 10.49 9.95
272399CR	NTE1508	DIP-18	Dot/bar display driver, 10-step	7.25 6.85 6.52
272428CR	NTE1561	SIP-9	5 LED VU level meter	2.85 2.69 2.57
272495CR	NTE1684	SIP-7	TV vertical deflection circuit	4.79 4.69 4.58
260128CR	NTE1714M	DIP-8	Remote control amplifier/driver	4.99 4.19 4.11
272524CR	NTE1729	DIP-16	PWM control circuit	4.19 4.10 4.00
272532CR	NTE1773	SIP-7	Vertical deflection output circuit	2.95 2.89 2.82
272559CR	NTE1782	SIP-7	TV vertical deflection output circuit	4.95 4.83 4.71
272567CR	NTE1784	DIP-16	Horizontal processor	4.39 4.28 4.17
272575CR	NTE1788	SIP-7	TV vertical output	5.79 5.67 5.55
272604CR	NTE1850	SIP-9	Audio amp, dual, 12W/ch	7.69 7.53 7.36
272701CR	NTE2013	DIP-16	7-channel darlington array driver	3.39 3.30 3.21
260136CR	NTE2014	DIP-16	7-channel darlington array driver	2.84 2.69 2.59
260144CR	NTE2018	DIP-18	8-channel darlington array driver	3.29 3.15 3.09
272735CR	NTE2117	DIP-16	MOS 16k DRAM	14.15 13.57 11.88
259291CR	NTE4001B	DIP-14	Quad 2-input NOR gate	.68 .65 .62
259303CR	NTE4006B	DIP-14	18-stage static shift register	2.82 2.77 2.71
273800CR	NTE4011B	DIP-14	CMOS quad 2-input nand gate	.91 .85 .77
259311CR	NTE4013B	DIP-14	Dual-D flip-flop w/ set/reset	1.10 1.06 1.02
273818CR	NTE4017B	DIP-16	CMOS decade counter	1.99 1.89 1.71
273826CR	NTE4026B	DIP-16	CMOS decade counter/divider	2.65 2.58 2.52
259320CR	NTE4049	DIP-16	Hex buffer/converter (inverting)	1.22 1.18 1.14
273834CR	NTE4050B	DIP-16	CMOS hex buffer/converter	1.59 1.55 1.51
259338CR	NTE4066B	DIP-14	Quad bilateral switch	1.42 1.37 1.31
273842CR	NTE4069	DIP-14	CMOS hex inverter, HV	.76 .75 .73
273851CR	NTE4081B	DIP-14	CMOS quad 2-input and gate	.68 .67 .65
259346CR	NTE4093B	DIP-14	Quad 2-input NAND Schmitt trigger	1.05 1.02 .99
273914CR	NTE4538B	DIP-16	CMOS dual multivibrator	1.69 1.65 1.61
273922CR	NTE4584B	DIP-14	CMOS hex Schmitt trigger	1.29 1.25 1.21
275039CR	NTE6403	—	Silicon bilateral switch	7.59 7.42 7.24
275071CR	NTE6800	DIP-40	MPU, NMOS, 8-bit, 1MHz	13.69 13.14 11.51
275080CR	NTE6821	DIP-40	PIA, NMOS, 1MHz	7.39 7.06 6.42
260152CR	NTE7039	SIP-13	Vert. deflection output circuit w/ drive circuit	3.19 3.09 2.99

## Integrated Circuits (Continued)

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
275098CR	NTE7096	DIP-8	PWM control circuit	\$2.99 \$2.87 \$2.75
275101CR	NTE7104	SIP-13	Vertical deflection output circuit	2.89 2.82 2.74
275119CR	NTE7400	DIP-14	TTL NAND gate	1.25 1.17 1.08
275223CR	NTE74LS00	DIP-14	TTL NAND gate	.73 .72 .70
275127CR	NTE7402	DIP-14	TTL NOR gate	.95 .92 .89
275194CR	NTE74HC02	DIP-14	Hi-speed CMOS quad 2-in gate	.55 .54 .52
275231CR	NTE74LS02	DIP-14	TTL NOR gate	.73 .72 .70
275240CR	NTE74LS03	DIP-14	TTL NAND gate	.73 .72 .70
275135CR	NTE7404	DIP-14	TTL hex inverter	.84 .82 .80
275258CR	NTE74LS04	DIP-14	TTL hex inverter	.90 .88 .86
275143CR	NTE7406	DIP-14	TTL hex inverter buffer	1.15 1.10 .95
259354CR	NTE7407	DIP-14	Hex buffer/driver	1.29 1.25 1.20
259362CR	NTE7408	DIP-14	Quad 2-input AND gate	1.06 1.03 .99
275266CR	NTE74LS08	DIP-14	TTL AND gate	.80 .78 .76
275274CR	NTE74LS11	DIP-14	TTL AND gate	.72 .70 .68
275207CR	NTE74HC14	DIP-14	Hi-speed CMOS hex schmitt	.65 .64 .62
275151CR	NTE7432	DIP-32	TTL OR gate	1.29 1.26 1.22
275303CR	NTE74LS32	DIP-32	TTL quad 2 input or gate	.86 .83 .81
275160CR	NTE7447	DIP-16	TTL decoder/driver	2.45 2.39 2.32
275178CR	NTE7474	DIP-14	TTL dual "D" flip-flop	.69 .65 .59
259389CR	NTE7475	DIP-16	4-bit bi-stable latch	3.89 3.71 3.54
275320CR	NTE74LS76A	DIP-16	TTL dual flip/flop	.92 .90 .88
275186CR	NTE7490	DIP-14	TTL decade counter	1.45 1.41 1.37
275426CR	NTE8216	DIP-16	Schottky bus driver	4.89 4.52 4.14
273797CR	NTE40106B	DIP-14	CMOS hex Schmitt trigger	1.25 1.22 1.18
259371CR	NTE74121	DIP-14	Monostable multivibrator	2.29 2.21 1.97
275338CR	NTE75188	DIP-14	DTL quad line driver, RS-232	1.55 1.52 1.48
259397CR	NTE75189	DIP-14	Quad line receiver	1.22 1.18 1.14
275282CR	NTE74LS192	DIP-16	TTL up/down counter	2.49 2.43 2.37
275215CR	NTE74HC244	DIP-20	Hi-speed CMOS octal buffer	1.29 1.27 1.24
275291CR	NTE74LS244	DIP-20	TTL quad driver	3.65 3.55 3.46
275311CR	NTE74LS490	DIP-16	TTL dual decade counter	3.05 2.97 2.90

## Voltage Regulators

		Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1 10 25
261358CR	NTE309K	TO-3	+5V, 1A	\$8.02 \$7.85 \$7.65
275531CR	NTE923	10-Lead MC	+2-37V, 150mA	4.99 4.74 4.50
275549CR	NTE923D	DIP-14	+2-37V, 150mA	1.45 1.38 1.31
260208CR	NTE931	TO-3	+5V, 3A	11.60 11.02 9.86
275565CR	NTE935	TO-3	+1.2-32V, 5A	13.89 13.19 12.53
275637CR	NTE950	TO-92	+12V, 100mA	2.15 2.03 1.92
275653CR	NTE956	TO-220	+1.2-37V, 1.5A	2.25 2.01 1.79
275661CR	NTE957	TO-220	-1.2-37V, 1.5A	3.29 2.76 2.64
260259CR	NTE960	TO-220	+5V, 1A	1.65 1.59 1.53
260267CR	NTE961	TO-220	-5V, 1A	1.65 1.59 1.53
260275CR	NTE962	TO-220	+6V, 1A	1.32 1.28 1.23
260283CR	NTE964	TO-220	+8V, 1A	1.29 1.25 1.19
260291CR	NTE966	TO-220	+12V, 1A	1.65 1.59 1.53
260304CR	NTE967	TO-220	-12V, 1A	1.65 1.59 1.53
260312CR	NTE968	TO-220	+15V, 1A	1.65 1.59 1.53
275670CR	NTE969	TO-220	-15V, 1A	1.65 1.59 1.39
275688CR	NTE970	TO-3	+1.2-33V, 3A	10.55 10.02 9.52
260321CR	NTE971	TO-220	-24V, 1A	4.65 4.39 4.15
260339CR	NTE972	TO-220	+24V, 1A	1.65 1.59 1.53
275079CR	NTE977	TO-92	+5V, 100mA	1.35 1.30 1.15
272541CR	NTE1777	SIP-5	+130V, 1A	12.35 12.01 11.66
272591CR	NTE1840	SIP-5	+41.8V, 2A hybrid switching	13.75 12.65 11.54
272612CR	NTE1910	TO-220	+9V, 1A switching	1.59 1.55 1.51
261331CR	NTE1914	TO-3	+12V, 1A	3.75 3.72 3.69

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## Voltage Regulators

Part No.	Cross Ref.	Pkg.	Description	Package (see pg 39)		
				1	10	25
261340CR	NTE1915	TO-3	-12V, 1A .....	\$3.89	\$3.85	\$3.79
272621CR	NTE1916	TO-3	+15V, 1.5A .....	4.69	4.49	4.09
272647CR	NTE1936	TO-3P	+12V, 2A .....	6.05	5.90	5.75

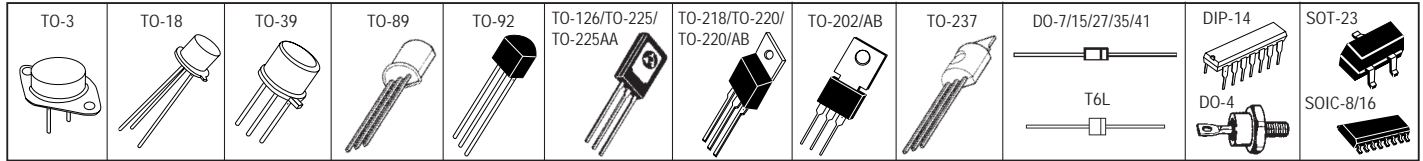
## Transistors

Part No.	Cross Ref.	Pkg.	Description	Package (see pgs 39)		
				1	10	25
272250CR	NTE11	TO-92	NPN silicon, high current amplifier .....	\$1.45	\$1.06	\$0.99
273017CR	NTE24	TO-237	NPN silicon, general-purpose amp., switch ..	1.42	1.17	1.14
273551CR	NTE31	TO-92	NPN silicon, AF driver output .....	2.35	2.27	2.00
273594CR	NTE32	TO-92	PNP silicon, TV sound/vert., AF driver output	2.45	2.37	2.07
273640CR	NTE36	TO-3P	NPN AF power amp., high-curr. switch .....	6.09	5.84	5.59
273658CR	NTE37	TO-3P	PNP AF power amp., high-curr. switch .....	4.65	4.55	4.45
273931CR	NTE46	TO-92	NPN silicon, gen-pur. amp., preamp., driver	1.49	1.45	1.28
261083CR	NTE47	TO-92	NPN high-gain, low-noise .....	.61	.59	.57
261104CR	NTE48	TO-92	NPN darlington, high-current .....	.95	.92	.89
274301CR	NTE51	TO-220	NPN high-voltage high-speed switch .....	3.15	2.99	2.71
274440CR	NTE53	TO-3	NPN hi-speed switch .....	11.39	11.12	10.84
274520CR	NTE54	TO-220	NPN audio power amplifier .....	2.95	2.82	2.56
261112CR	NTE55	TO-220	PNP complementary trans., hi-freq. driver ...	3.56	3.39	3.25
274976CR	NTE60	TO-3	NPN silicon complementary transistor .....	9.49	8.55	7.09
275063CR	NTE68	TO-3	PNP silicon, gen-purpose hi-pwr audio .....	9.85	9.57	9.29
261139CR	NTE85	TO-92	NPN general-purpose amplifier .....	.84	.79	.76
275477CR	NTE89	TO-3	NPN color TV horizontal output .....	10.09	9.56	8.69
275493CR	NTE90	TO-92	NPN general-purpose high-gain amp. ....	1.09	1.04	.95
275506CR	NTE91	TO-92	PNP silicon, gen-purpose hi-gain amp. ....	1.09	1.04	.95
275590CR	NTE94	TO-3	NPN high-voltage switch .....	4.89	4.78	4.67
275725CR	NTE98	TO-3	NPN silicon, HV darl. pwr amp., switch ...	18.39	17.47	16.60
260507CR	NTE100	TO-18	PNP germanium comp. trans. oscillator ...	3.15	3.09	3.04
260515CR	NTE102	TO-18	PNP germanium comp. trans. pwr output driver	3.69	2.49	2.35
272225CR	NTE102A	TO-1	PNP germanium, medium power amp. ....	2.09	2.06	2.03
272233CR	NTE103A	TO-1	NPN darlington power amplifier .....	1.55	1.45	1.39
272241CR	NTE107	TO-92	NPN silicon, UHF oscillator for tuner .....	1.25	1.15	1.06
260523CR	NTE108	TO-92	NPN high-frequency amplifier .....	1.34	1.29	1.24
272284CR	NTE121	TO-3	PNP hi pwr, low coll. sat. volt pwr output ...	10.89	10.15	9.65
260531CR	NTE123	TO-18	NPN general-purpose audio amp., switch ...	.75	.73	.71
260540CR	NTE123A	TO-18	NPN comp. transistor, general-purpose ...	1.07	1.04	.99
260558CR	NTE123AP	TO-92	NPN audio amplifier switch .....	.86	.79	.74
260566CR	NTE128	TO-39	NPN comp. trans., audio output, video driver	1.19	1.15	1.07
260574CR	NTE128P	TO-237	NPN comp. transistor, general-purpose ...	1.29	1.25	1.20
260582CR	NTE129	TO-237	PNP comp. transistor, general-purpose ...	2.26	2.19	2.09
272313CR	NTE129P	TO-237	PNP silicon, general-purpose amp. ....	1.19	1.16	1.02
260591CR	NTE130	TO-3	NPN audio pwr amp., medium speed switch	2.76	2.52	2.29
272401CR	NTE152	TO-220	NPN audio power amplifier .....	1.79	1.75	1.49
272410CR	NTE153	TO-220	PNP silicon, audio power amp., switch .....	2.05	1.96	1.69
260603CR	NTE154	TO-39	NPN high-voltage video output .....	2.82	2.65	2.56
272444CR	NTE157	TO-126	NPN silicon, HV audio power .....	1.75	1.65	1.44
272452CR	NTE158	TO-1	PNP germanium audio power amp. ....	2.15	2.08	2.01
260611CR	NTE159	TO-92	NPN audio amplifier switch .....	.96	.91	.87
272461CR	NTE159M	TO-18	PNP silicon, general-purpose .....	.78	.76	.74
272479CR	NTE160	TO-72	PNP germanium RF-IF amp., FM mixer osc.	4.09	3.89	3.55
272516CR	NTE171	TO-202	NPN silicon audio/video amplifier .....	1.85	1.75	1.61
260620CR	NTE172A	TO-92	NPN darlington pre-amp., med. sp. switch ....	.62	.61	.58
260638CR	NTE175	TO-3	NPN comp. trans., hi-volt. med. pwr switch ...	3.30	3.25	3.19
272583CR	NTE180	TO-3	PNP silicon, high-power audio amp. ....	7.79	7.44	6.78
260646CR	NTE181	TO-3	NPN high-power audio amplifier .....	6.60	6.29	6.01
260654CR	NTE184	TO-126	NPN comp. trans. audio pwr amp., switch	1.81	1.75	1.69
260662CR	NTE185	TO-126	PNP comp. trans. audio pwr amp., switch	1.90	1.85	1.77
272639CR	NTE192	TO-92SH	NPN audio power output .....	1.79	1.68	1.53
272655CR	NTE194	TO-92	NPN silicon, audio power amplifier .....	.58	.56	.49
260671CR	NTE196	TO-220	NPN comp. trans. audio pwr output/med. pwr switch	2.43	2.39	2.13
272663CR	NTE197	TO-220	PNP silicon, audio power output .....	2.35	2.24	2.04
272671CR	NTE198	TO-220	NPN silicon, hi-volt power transistor .....	2.55	2.43	2.20
260689CR	NTE199	TO-92	NPN low noise, high-gain amplifier .....	.67	.65	.62
272743CR	NTE219	TO-3	PNP silicon, audio pwr amp., med sp switch .	4.15	3.97	3.61
272786CR	NTE232	TO-92	PNP silicon, darl. amp., preamp. ....	.78	.75	.66
260777CR	NTE234	TO-92	PNP low-noise, high-gain amplifier .....	.89	.85	.81
272866CR	NTE236	B-26	NPN silicon, RF power output .....	9.04	7.82	7.62
260822CR	NTE238	TO-3	NPN color TV horizontal output .....	5.55	5.49	5.45

## Transistors (Continued)

Part No.	Cross Ref.	Pkg.	Description	Package (see pgs 39)		
				1	10	25
273041CR	NTE243	TO-3	NPN darlington medium power amp. ....	\$3.15	\$2.92	\$2.68
260857CR	NTE247	TO-3	NPN comp. trans. darlington power amp.	5.27	4.99	4.80
273076CR	NTE248	TO-3	PNP darlington power amplifier .....	6.05	5.59	5.13
273084CR	NTE249	TO-3	NPN darlington power amplifier .....	7.89	7.71	7.53
273121CR	NTE251	TO-3	NPN darlington power amplifier .....	8.19	8.02	7.85
273130CR	NTE252	TO-3	PNP darlington power amplifier .....	7.99	7.82	7.64
260865CR	NTE253	TO-126	NPN comp. trans. darlington power amp.	1.53	1.49	1.43
273156CR	NTE254	TO-218	PNP darlington power amplifier .....	2.19	2.10	1.92
260881CR	NTE261	TO-220	NPN comp. trans. darlington power amp.	2.28	2.22	2.15
260890CR	NTE262	TO-220	PNP comp. trans. darlington power amp.	2.52	2.49	2.40
260902CR	NTE263	TO-220	NPN comp. trans. darlington power amp.	2.52	2.39	2.30
260911CR	NTE264	TO-220	PNP comp. trans. darlington power amp.	2.91	2.85	2.75
260929CR	NTE265	TO-220	NPN darlington power amplifier .....	3.76	3.74	3.65
273172CR	NTE270	TO-218	NPN darlington power amplifier .....	4.59	4.41	4.07
273181CR	NTE271	TO-218	PNP darl. power amplifier, switch .....	5.79	5.25	4.67
273199CR	NTE272	TO-202	NPN darlington .....	13.95	11.85	11.20
273201CR	NTE283	TO-3	NPN silicon, horizontal output, switch .....	9.79	9.52	9.25
273210CR	NTE284	TO-3	NPN audio power amplifier .....	9.89	9.64	9.38
260937CR	NTE287	TO-92	NPN comp. trans. hi-volt., general-purpose	.87	.85	.80
260945CR	NTE288	TO-92	PNP comp. trans. hi-volt., general-purpose	.80	.74	.65
260953CR	NTE289A	TO-92	NPN comp. transistor audio power amp. ...	1.22	1.19	1.14
273228CR	NTE290	U-83/TO-92	PNP silicon audio power amp., switch .....	1.05	1.03	1.00
260961CR	NTE290A	TO-92	PNP comp. transistor audio power amp. ...	1.38	1.34	1.28
260970CR	NTE291	TO-220	NPN comp. trans. medium power amp., switch	2.16	2.09	2.01
273236CR	NTE292	TO-220	PNP silicon med-pwr amp., switch .....	2.29	2.09	1.73
273244CR	NTE293	TO-92	NPN audio power amp. and driver .....	1.65	1.55	1.41
273252CR	NTE294	TO-92	PNP silicon, audio amp. and driver .....	1.65	1.55	1.41
273261CR	NTE295	TO-126	NPN silicon, RF pwr output, driver .....	2.99	2.77	2.55
260988CR	NTE311	TO-39	NPN frequency multiplier driver, VHF/UHF	2.78	2.75	2.67
260996CR	NTE316	TO-39	NPN high-gain, low-noise amp. ....	3.10	3.02	2.95
273615CR	NTE323	TO-39	PNP silicon, general-purpose .....	3.29	3.13	2.85
273623CR	NTE324	TO-39	NPN silicon complementary transistor .....	4.25	3.92	3.59
261008CR	NTE331	TO-220	NPN comp. trans. audio power amp., switch	2.89	2.74	2.61
261016CR	NTE332	TO-220	PNP comp. trans. audio power amp., switch	2.89	2.75	2.62
261024CR	NTE373	TO-126	NPN comp. transistor audio amp. driver ..	1.68	1.64	1.57
261032CR	NTE374	TO-126	PNP comp. transistor audio amp. driver ...	1.73	1.65	1.61
273666CR	NTE375	TO-220	NPN silicon, TV vertical output .....	2.19	2.01	1.66
273674CR	NTE377	TO-220	NPN silicon, pwr amp. driver, output, switch	2.49	2.39	2.16
261041CR	NTE378	TO-220	PNP comp. trans. pwr amp. driver output switch	2.72	2.55	2.46
261059CR	NTE379	TO-220	NPN power amp. high-voltage switch .....	7.14	7.09	6.99
273682CR	NTE382	TO-92	NPN silicon, AF driver output .....	2.05	1.97	1.72
273691CR	NTE383	R-245	PNP silicon, audio frequency driver .....	1.65	1.55	1.41
273703CR	NTE384	TO-66	NPN silicon high-volt. pwr amp., switch ...	5.59	5.35	4.85
273711CR	NTE385	TO-3	NPN silicon, audio power amp., switch ....	8.55	8.37	8.18
273720CR	NTE386	TO-3	NPN silicon, audio power amp., switch ...	17.69	17.22	16.74
273738CR	NTE388	TO-3	NPN silicon, gen-purpose hi-pwr audio ...	11.65	10.99	9.99
273746CR	NTE392	TO-218	NPN silicon, general-purpose amp. ....	5.59	5.33	4.83
273754CR	NTE393	TO-218	PNP silicon, general-purpose amp. ....	5.19	4.97	4.58
273762CR	NTE395	TO-72	PNP silicon, wide-band linear amplifier ....	3.25	2.82	2.63
273771CR	NTE396	TO-39	NPN silicon, pwr amp. & hi-speed switch	2.45	2.37	2.07
261067CR	NTE397	TO-39	PNP power amp. & high-speed switch .....	2.74	2.51	2.23
273789CR	NTE398	TO-220	PNP silicon TV vertical output .....	2.29	2.07	1.71
261075CR	NTE399	TO-92	NPN high-voltage video amp. ....	2.75	2.64	2.52
261091CR	NTE473	TO-39	NPN RF power driver .....	5.17	5.15	5.09
260700CR	NTE2300	TO-3P	NPN high-voltage horizontal output .....	5.09	4.59	4.13
272751CR	NTE2302	TO-3P	NPN silicon, color TV horiz. deflection output	6.29	6.16	6.02
272760CR	NTE2308	TO-3P	NPN silicon, hi-volt, hi-current switch .....	6.49	6.19	5.64
260718CR	NTE2311	TO-218	NPN high-voltage high-speed switch .....	14.24	13.45	12.82
260726CR	NTE2312	TO-220	NPN high-voltage high-speed switch .....	4.74	4.49	4.30
272778CR	NTE2319	TO-3	NPN silicon, hi-volt, hi-speed pwr switch	6.89	6.73	6.56
272794CR	NTE2321	DIP-14	NPN silicon, quad general-purpose .....	3.35	3.00	2.71
260734CR	NTE2322	DIP-14	PNP quad general-purpose .....	2.82	2.57	2.28
260742CR	NTE2324	TO-220	NPN color TV horiz. deflection output .....	8.55	8.15	7.96
272807CR	NTE2325	TO-220	NPN silicon, high-voltage switch .....	2.53	2.15	2.10
272815CR	NTE2328	—	NPN silicon complementary trans. ....	6.69	6.02	5.42
260751CR	NTE2329	TO-126	PNP comp. trans. audio power output .....	5.75	5.69	5.65
260769CR	NTE2331	TO-220	NPN color TV horiz. deflection output w/ damper diode	6.85	6.79	6.75

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.



## Transistors (Continued)

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1	10 25
272823CR	NTE2333	TO-220	NPN silicon, power transistor	\$3.05	\$2.98 \$2.91
260785CR	NTE2343	TO-220	NPN comp. trans., darlington pwr amp., switch	2.07	1.95 1.92
272831CR	NTE2354	TO-3P	NPN silicon, hi-volt horizontal output	11.69	11.05 10.04
272840CR	NTE2355	TO-92	NPN silicon w/ 10k bias resistor	.84	.81 .74
260793CR	NTE2344	TO-220	PNP comp. trans., darlington pwr amp., switch	1.65	1.55 1.51
260806CR	NTE2349	TO-3	NPN darlington trans., hi-curr. gen-purpose	15.62	15.39 15.25
260814CR	NTE2353	TO-220	NPN TV horiz. deflection output w/ damper diode	5.73	5.69 5.65
272858CR	NTE2356	TO-92	PNP silicon, w/ 2 10k bias resistors	.78	.65 .63
272874CR	NTE2361	TO-92	NPN silicon, high-speed switch	.62	.60 .55
272882CR	NTE2362	TO-92	PNP silicon, high-speed switch	.96	.79 .77
272891CR	NTE2363	TO-92	NPN silicon, hi-curr. gen-pur. amp./switch	.75	.62 .60
272903CR	NTE2365	—	NPN silicon, hi-volt TV horiz defl. output	14.79	14.44 14.09
273025CR	NTE2406	SOT-23	NPN silicon, gen-purpose amp., SMT	1.45	1.39 1.28
273033CR	NTE2407	SOT-23	PNP silicon, gen-purpose amp., SMT	1.55	1.49 1.37
260831CR	NTE2408	SOT-23	NPN general-purpose amp. (2/pk.)	1.25	1.19 1.15
260849CR	NTE2409	SOT-23	PNP general-purpose amp. (2/pk.)	1.25	1.19 1.15
273050CR	NTE2430	SOT-89	NPN silicon, high-volt amp./switch	1.75	1.71 1.67
273068CR	NTE2431	SOT-89	PNP silicon, high-volt amp./switch	1.59	1.55 1.51
273092CR	NTE2501	TO-126ML	NPN silicon, high-volt for video output	1.75	1.66 1.51
273105CR	NTE2507	TO-220	NPN silicon high-freq. video output	5.95	5.33 4.79
273113CR	NTE2508	TO-126ML	NPN video output for HDTV	1.49	1.45 1.41
273148CR	NTE2521	TO-126ML	NPN video output for HDTV	5.15	4.45 4.19
260873CR	NTE2543	TO-220	NPN darlington motor/relay driver	3.29	3.25 3.19
273164CR	NTE2582	TO-220	NPN silicon hi-speed switching reg.	4.19	4.10 4.01
275012CR	NTE6401	TO-18	Silicon unijunction	5.65	5.51 5.37
275021CR	NTE6402	TO-98/TO-92	Silicon programmable unijunction	1.39	1.35 1.18
275047CR	NTE6409	TO-18	Silicon unijunction	6.05	5.92 5.78
261121CR	NTE6410	TO-92	Unijunction transistor	4.79	4.75 4.69
272487CR	NTE16004	TO-39	PNP silicon, hi-current, gen-purpose	1.79	1.75 1.70

## JFETs

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1	10 25
272321CR	NTE133	TO-106	N-ch JFET general-purpose AF amp.	\$9.1	\$8.9 \$8.7
273578CR	NTE312	TO-92	N-ch JFET	1.25	1.23 1.20
273631CR	NTE326	TO-92	P-ch JFET general-purpose AF amp.	1.45	1.39 1.26
273906CR	NTE451	TO-92	N-ch JFET UHF/VHF amplifier	1.65	1.61 1.57
260427CR	NTE457	TO-92	N-ch JFET general-purpose	1.04	.99 .95
260435CR	NTE458	TO-92	N-ch JFET low-noise, audio-freq. amp.	1.70	1.65 1.59
273949CR	NTE466	TO-18	N-ch JFET chopper, high-speed switch	2.79	2.56 2.33

## MOSFETs

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1	10 25
275055CR	NTE66	TO-220	N-ch enhancement mode hi-speed switch	\$6.89	\$6.58 \$5.99
260443CR	NTE222	TO-39	Dual gate N-channel MOSFET	10.56	9.59 8.95
273957CR	NTE490	TO-92	N-ch enhancement mode hi-speed switch	.81	.80 .78
273981CR	NTE491	TO-92	N-ch enhancement mode hi-speed switch	.63	.62 .60
272911CR	NTE2371	TO-220	P-ch enhancement mode	6.89	6.75 6.61
272920CR	NTE2374	TO-220	N-ch enhancement mode	4.29	4.00 3.70
272938CR	NTE2377	TO-3P	N-ch enhancement mode hi-speed switch	10.85	10.55 10.24
272946CR	NTE2379	TO-220	N-ch enhancement mode	4.09	4.00 3.91
272954CR	NTE2382	TO-220	N-ch enhancement mode hi-speed switch	3.59	3.43 3.11
272962CR	NTE2383	TO-220	P-ch enhancement mode hi-speed switch	7.89	7.54 6.86
272971CR	NTE2385	TO-220	N-ch enhancement mode hi-speed switch	5.58	4.77 4.53
272989CR	NTE2387	TO-220	N-ch enhancement mode hi-speed switch	9.79	9.56 9.32
272997CR	NTE2388	TO-220	N-ch enhancement mode hi-speed switch	6.10	5.67 5.04
260451CR	NTE2389	TO-220	N-ch enhancement mode hi-speed switch	5.35	5.15 4.91
260460CR	NTE2394	TO-126	N-ch enhancement mode hi-speed switch	11.25	11.19 11.09
260478CR	NTE2395	TO-126	N-ch enhancement mode hi-speed switch	5.60	5.39 5.15
273009CR	NTE2396	TO-220	N-ch enhancement mode hi-speed switch	5.09	4.59 4.13
260486CR	NTE2397	TO-220	N-ch enhancement mode hi-speed switch	5.60	5.39 5.15

## MOSFETs (continued)

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1	10 25
260494CR	NTE2398	TO-220	N-ch enhancement mode hi-speed switch	\$3.75	\$3.69 \$3.65
273279CR	NTE2987	TO-220	N-ch enhancement mode hi-speed switch	6.59	6.44 6.29

## Diodes

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Description	1	10 25
259418CR	NTE109	DO-7	Germanium fast switching	\$1.18	\$1.14 \$1.10
272268CR	NTE110A	DO-7	Germanium general-purpose	1.09	.99 .89
272276CR	NTE110MP	DO-7	Germanium point contact	1.55	1.47 1.39
259426CR	NTE112	DO-35	Silicon small signal schottky	1.48	1.34 1.20
259434CR	NTE177	DO-35	Silicon general-purpose	.30	.28 .26
259442CR	NTE519	DO-7	Silicon ultra-fast switch	.34	.31 .29
274431CR	NTE525	DO-41	Silicon high-volt, fast-recovery switch	2.55	2.44 2.20
274634CR	NTE553	DO-35	Schottky barrier diode	.91	.89 .87
259451CR	NTE570	DO-7	Silicon controlled avalanche diode	1.23	1.19 1.15
259469CR	NTE583	DO-7	Schottky RF switch	1.27	1.22 1.19
274853CR	NTE585	DO-41	Schottky barrier, fast switching	.92	.91 .78
274861CR	NTE586	DO-27	Schottky barrier, fast switching	1.75	1.67 1.59
274870CR	NTE587	DO-41	Silicon ultra-fast switching	.82	.80 .69
259477CR	NTE588	DO-7	Silicon 200V, 3A fast switch	1.25	1.21 1.16
274917CR	NTE593	SOT-23	Silicon, high-speed switch	1.75	1.68 1.59
274925CR	NTE596	SOT-23	Silicon, dual diode, common anode	1.69	1.65 1.61
259485CR	NTE618	—	Silicon tuning diode for AM radio, varactor	1.79	1.75 1.69

## Zener Diodes

			Package (see above)		
Part No.	Cross Ref.	Pkg.	Voltage	Wattage	Qty.
274028CR	NTE5002A	DO-35	2.7V	1/2W	1/pk.
274036CR	NTE5004A	DO-35	3V	1/2W	1/pk.
274044CR	NTE5005A	DO-35	3.3V	1/2W	1/pk.
274052CR	NTE5007A	DO-35	3.9V	1/2W	1/pk.
274061CR	NTE5009A	DO-35	4.7V	1/2W	1/pk.
259565CR	NTE5010A	DO-35	5.1V	1/2W	1/pk.
274079CR	NTE5011A	DO-35	5.6V	1/2W	1/pk.
274087CR	NTE5012A	DO-35	6V	1/2W	1/pk.
274095CR	NTE5013A	DO-35	6.2V	1/2W	1/pk.
274108CR	NTE5014A	DO-35	6.8V	1/2W	1/pk.
274116CR	NTE5015A	DO-35	7.5V	1/2W	1/pk.
274124CR	NTE5018A	DO-35	9.1V	1/2W	1/pk.
274132CR	NTE5019A	DO-35	10V	1/2W	1/pk.
259573CR	NTE5021A	DO-35	12V	1/2W	1/pk.
259581CR	NTE5024A	DO-35	15V	1/2W	1/pk.
274141CR	NTE5031A	DO-35	24V	1/2W	1/pk.
274159CR	NTE5035A	DO-35	30V	1/2W	1/pk.
274167CR	NTE5057A	DO-35	170V	1/2W	1/pk.
272330CR	NTE134A	DO-35	3.6V	1W	2/pk.
259493CR	NTE135A	DO-35	5.1V	1W	2/pk.
259506CR	NTE136A	DO-35	5.6V	1W	2/pk.
272348CR	NTE137A	DO-35	6.2V	1W	2/pk.
259514CR	NTE138A	DO-35	7.5V	1W	2/pk.
272356CR	NTE139A	DO-35	9.1V	1W	2/pk.
272364CR	NTE140A	DO-35	10V	1W	2/pk.
259522CR	NTE142A	DO-35	12V	1W	2/pk.
259531CR	NTE143A	DO-35	13V	1W	2/pk.
272372CR	NTE144A	DO-35	14V	1W	2/pk.
259549CR	NTE145A	DO-35	15V	1W	2/pk.
272381CR	NTE146A	DO-35	27V	1W	2/pk.
259557CR	NTE147A	DO-35	33V	1W	2/pk.
274183CR	NTE5066A	DO-35	3.3V	1W	2/pk.
274191CR	NTE5069A	DO-35	4.7V	1W	2/pk.
274204CR	NTE5071A	DO-35	6.8V	1W	2/pk.
274212CR	NTE5072A	DO-35	8.2V	1W	2/pk.



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## Zener Diodes (Continued)

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Voltage	Wattage	Qty.	1	10	25
274221CR	NTE5075A	DO-35	16V	1W	2/pk.	\$1.85	\$1.81	\$1.77
259590CR	NTE5077A	DO-35	18V	1W	2/pk.	1.42	1.38	1.32
274239CR	NTE5079A	DO-35	20.0V	1W	2/pk.	1.45	1.39	1.26
274247CR	NTE5080A	DO-35	22.0V	1W	2/pk.	2.15	2.12	2.08
274255CR	NTE5081A	DO-35	24V	1W	2/pk.	1.85	1.81	1.77
274263CR	NTE5084A	DO-35	30V	1W	2/pk.	1.45	1.39	1.26
274271CR	NTE5085A	DO-35	36V	1W	2/pk.	1.85	1.81	1.77
274280CR	NTE5093A	DO-35	75V	1W	2/pk.	1.85	1.81	1.77
274298CR	NTE5096A	DO-35	100V	1W	2/pk.	1.85	1.81	1.77
274319CR	NTE5100A	DO-35	150V	1W	2/pk.	1.45	1.38	1.20
259602CR	NTE5105A	DO-35	200V	1W	2/pk.	1.86	1.78	1.70
274327CR	NTE5116A	DO-35	5.1V	5W	1/pk.	2.05	2.00	1.95
274335CR	NTE5127A	DO-35	12V	5W	1/pk.	1.45	1.39	1.26
259611CR	NTE5130A	DO-35	15V	5W	1/pk.	1.46	1.39	1.32
274343CR	NTE5131A	DO-35	16V	5W	1/pk.	2.05	2.00	1.95
274351CR	NTE5133A	DO-35	18V	5W	1/pk.	2.05	2.00	1.95
274360CR	NTE5137A	DO-35	24V	5W	1/pk.	1.45	1.38	1.20
274378CR	NTE5139A	DO-35	27V	5W	1/pk.	2.05	1.99	1.95
259629CR	NTE5141A	DO-35	30V	5W	1/pk.	2.05	2.01	1.97
274386CR	NTE5142A	DO-35	33V	5W	1/pk.	1.25	1.15	1.01
274394CR	NTE5147A	DO-35	51V	5W	1/pk.	2.05	1.99	1.95
259637CR	NTE5164A	DO-35	180V	5W	1/pk.	2.05	2.01	1.97

## Transient Voltage Suppressors

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273965CR	NTE4902	DO-15	6.45V <sub>BR</sub> 5.80V	\$3.39	\$3.32	\$3.23
273973CR	NTE4903	DO-15	6.12V <sub>BR</sub> 5.50V	3.39	3.31	3.22
273990CR	NTE4928	DO-15	19V <sub>BR</sub> 17.1V	2.39	2.33	2.27
274001CR	NTE4951	DO-15	48.5V <sub>BR</sub> 43.6V	3.39	3.31	3.22
274010CR	NTE4993	DO-15	304V <sub>BR</sub> 273V	1.83	1.50	1.46

## Rectifiers

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	10	25
259813CR	NTE116	DO-41	Rectifier	600V	1A	\$ .49	\$ .45	\$ .42
259821CR	NTE125	DO-41	Rectifier	1000V	2.5A	.50	.48	.45
259830CR	NTE156	DO-41	Rectifier	1000V	3A	.67	.63	.60
272436CR	NTE156A	—	Rectifier	1000V	3A	.72	.67	.61
259645CR	NTE506	DO-41	Rectifier	1400V	2A	1.10	1.06	1.02
274407CR	NTE517	—	Rectifier	15000V	200A	5.05	4.95	4.85
259848CR	NTE541	DO-35	Rectifier	8400V	50A	8.37	8.29	8.25
259856CR	NTE552	DO-41	Rectifier	600V	1A	.93	.90	.87
259864CR	NTE558	DO-41	Rectifier	1500V	1A	1.68	1.63	1.57
259872CR	NTE569	DO-41	Rectifier	600V	3A	1.12	1.03	.95
274781CR	NTE571	—	Rectifier	1000V	2.9A	.64	.61	.58
274790CR	NTE572	—	Rectifier	1000V	6A	1.05	1.03	1.00
259881CR	NTE574	DO-41	Rectifier	400V	1A	.58	.53	.48
274811CR	NTE575	DO-41	Rectifier	1000V	1A	.67	.65	.56
259899CR	NTE576	DO-41	Rectifier	400V	5A	1.86	1.79	1.73
274829CR	NTE579	DO-27	Rectifier	90V	3A	2.59	2.39	2.19
259901CR	NTE577	DO-41	Rectifier	1000V	5A	3.58	3.45	3.33
259910CR	NTE580	SOD57	Rectifier	600V	3A	2.71	2.59	2.47
274933CR	NTE597	TO-220	Rectifier	200V	8A	1.69	1.61	1.53
260021CR	NTE598	TO-220/2	Rectifier	600V	8A	2.16	2.11	2.08
274992CR	NTE622	DO-213AA	Rectifier	400V	0.5A	2.29	2.26	2.22
274802CR	NTE5740	—	Rectifier	800V	30A	36.79	29.43	28.15
259928CR	NTE5800	DO-41	Rectifier	50V	3A	.33	.31	.30
259936CR	NTE5801	DO-41	Rectifier	100V	3A	.48	.45	.44
274837CR	NTE5802	DO-27	Rectifier	200V	3A	.58	.53	.50
259944CR	NTE5804	DO-41	Rectifier	400V	3A	.60	.56	.54
259952CR	NTE5806	DO-41	Rectifier	600V	3A	.94	.92	.88
274845CR	NTE5808	DO-27	Rectifier	800V	3A	1.19	1.10	.99
259961CR	NTE5809	DO-41	Rectifier	1000V	3A	1.39	1.31	1.25
259979CR	NTE5812	T6L	Rectifier	100V	6A	.91	.87	.84
259987CR	NTE5814	T6L	Rectifier	400V	6A	1.52	1.45	1.40
259995CR	NTE5815	T6L	Rectifier	600V	6A	2.49	2.27	2.15
260005CR	NTE5817	T6L	Rectifier	1000V	6A	2.28	2.14	2.04
260013CR	NTE5870	DO-4	Rectifier	50V	12A	2.60	2.49	2.38

## Rectifiers (Continued)

Package (see pgs 41)

Part No.	Cross Ref.	Pkg.	Description	PRV	AFC	1	10	25
274888CR	NTE5874	DO-4	Rectifier	200V	12A	\$3.35	\$2.82	\$2.50
274896CR	NTE5882	DO-4	Rectifier	600V	12A	4.49	4.27	4.05
274909CR	NTE5890	DO-4	Rectifier	1000V	12A	8.69	7.38	6.55
274941CR	NTE5980	DO-4	Rectifier	50V	40A	3.89	3.80	3.70
274950CR	NTE5994	DO-4	Rectifier	600V	40A	8.65	8.45	8.25
274968CR	NTE5995	DO-4	Rectifier	600V	40A	8.65	8.45	8.25
260030CR	NTE6013	TO-220	Rectifier	600V	12.7A isolated	3.77	3.69	3.61
274984CR	NTE6154	DO-8	Rectifier	400V	150A	26.59	25.93	25.28
260048CR	NTE6240	TO-220	Rectifier	200V	16A	3.94	3.77	3.59
275004CR	NTE6244	TO-220	Rectifier, dual	200V	16A	4.89	4.78	4.67
259653CR	NTE166	BR8D	Bridge rectifier	100V	2A	1.10	1.06	1.02
259661CR	NTE167	BR8D	Bridge rectifier	200V	2A	1.75	1.69	1.62
259670CR	NTE168	BR8D	Bridge rectifier	400V	2A	1.93	1.86	1.79
272508CR	NTE169	BR8D	Bridge rectifier	600V	2A	2.09	2.02	1.78
259688CR	NTE170	BR8D	Bridge rectifier	1000V	2A	2.82	2.79	2.75
259696CR	NTE5304	WOM	Bridge rectifier	400V	1.5A	1.32	1.28	1.23
259709CR	NTE5305	WOM	Bridge rectifier	600V	1.5A	1.47	1.42	1.39
274458CR	NTE5309	BR8D	Bridge rectifier	200V	4A	2.79	2.73	2.66
274466CR	NTE5310	BR8D	Bridge rectifier	600V	4A	2.80	2.42	2.22
259717CR	NTE5312	GBPC	Bridge rectifier	100V	8A	3.88	3.70	3.53
259725CR	NTE5313	GBPC	Bridge rectifier	200V	8A	3.82	3.65	3.48
259733CR	NTE5314	GBPC	Bridge rectifier	400V	8A	3.93	3.74	3.59
274474CR	NTE5315	GBPC	Bridge rectifier	600V	8A	4.45	4.08	3.63
274482CR	NTE5318	—	Bridge rectifier	200V	4A	2.19	2.14	2.08
259741CR	NTE5322	TB35	Bridge rectifier	200V	25A	5.64	5.38	5.13
274491CR	NTE5324	TB35	Bridge rectifier	400V	25A	5.99	5.84	5.69
259750CR	NTE5326	TB35	Bridge rectifier	600V	25A	7.59	7.20	6.90
274503CR	NTE5328	TB35	Bridge rectifier	1000V	25A	7.89	7.69	7.50
259768CR	NTE5329	BR8D	Bridge rectifier	200V	6A	3.63	3.46	3.30
274511CR	NTE5330	BR8D	Bridge rectifier	600V	6A	5.15	5.02	4.90
259776CR	NTE5332	DIP-4	Bridge rectifier	600V	1A	1.52	1.45	1.39
259784CR	NTE5340	—	Bridge rectifier	200V	40A	9.00	8.57	8.17
259792CR	NTE5342	—	Bridge rectifier	600V	40A	11.37	10.79	10.24
259805CR	NTE5344	—	Bridge rectifier	1000V	40A	12.78	12.29	11.80

## Silicon Controlled Rectifiers (SCR)

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
274538CR	NTE5400	TO-92	30 VRM, 0.8A	\$ .79	\$ .62	\$ .60
260056CR	NTE5401	TO-92	60 VRM, 0.8A	.97	.91	.87
260064CR	NTE5402	TO-92	100 VRM, 0.8A	.97	.89	.78
260072CR	NTE5404	TO-92	200 VRM, 0.8A	1.33	1.29	1.25
274546CR	NTE5405	TO-92	400 VRM, 0.8A	2.19	2.14	2.08
274554CR	NTE5414	TO-126	200 VRM, 4A	1.65	1.61	1.57
274562CR	NTE5424	TO-220	400 VRM, 4.7A, high speed	6.45	6.31	6.17
274571CR	NTE5426	TO-220	400 VRM, 10A	2.59	2.48	2.26
274589CR	NTE5437	TO-220	400 VRM, 8A	2.15	2.10	2.04
274597CR	NTE5455	TO-202	200 VRM, 4A	1.19	1.12	1.02
260081CR	NTE5457	TO-202	400 VRM, 4A	1.33	1.29	1.25
260099CR	NTE5458	TO-202	600 PRV, 4A	2.03	1.99	1.94
274600CR	NTE5460	TO-220	800 VRM, 25A	10.29	10.03	9.76
274618CR	NTE5465	TO-202	400 VRM, 10A	2.75	2.59	2.36
274626CR	NTE5466	TO-202	600 VRM, 10A	4.19	4.00	3.80
274642CR	NTE5547	TO-48	600 VRM, 35A	15.65	15.24	14.83

## Diacs/Triacs/Sidacs/TVS

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
261278CR	NTE4900	DO-35	TVS, 5.0V	\$2.18	\$2.15	\$2.09
274693CR	NTE5608	TO-220	Triac, 400 VRM, 8A, gate	2.55	2.33	1.93
274706CR	NTE5609	TO-220	Triac, 600 VRM, 8A, gate	3.45	3.37	3.28
274714CR	NTE5620	TO-220	Triac, 800 VRM, 8A, isolated	5.33	4.62	4.50
261147CR	NTE5629	TO-202	Triac, 400 VRM, 4A	1.98	1.89	1.81
274722CR	NTE5635	TO-220	Triac, 400 VRM, 10A	3.49	3.22	2.86
274731CR	NTE5638	TO-220	Triac, 400 VRM, 8A isolated tab	3.05	2.97	2.89
274749CR	NTE5645	TO-220	Triac, 600 VRM, 10A, isolated tab	3.69	3.60	3.51
261155CR	NTE5656	TO-9	Triac, 400 VRM, 0.8A	1.08	1.05	.99
274757CR	NTE5671	TO-220	Triac, 800 VRM, 20A, isolated	5.55	5.45	5.34
274765CR	NTE5679	—	Triac, 600 VRM, 40A	17.19	16.34	15.52

Please call our sales rep if you cannot find a specific NTE replacement product. We also offer special pricing on large quantity orders.

261307CR  
Size: 16mm261163CR  
Thermal Fuse260363CR  
SIP-9260371CR  
T-1 1/4260380CR  
DIP-6259178CR  
DIP-16259186CR  
DIP-8259160CR  
TO-220

## Diacs/Triacs/Sidacs/TVS (Continued)

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260110CR	NTE6404	TO-89	SUS, SI, 1.0A	\$8.86	\$8.79	\$8.75
259400CR	NTE6408	DO-35	Diac	.94	.90	.87
260101CR	NTE6419	—	Sidac, 110-125V	2.06	1.99	1.91
274651CR	NTE56008	TO-220	Triac, 600 VRM, 15A	5.09	4.86	4.42
274669CR	NTE56020	TO-220	Triac, 400 VRM, 25A	7.45	7.28	7.10
274677CR	NTE56024	TO-48	Triac, 400 VRM, 40A	13.75	13.38	13.00
274685CR	NTE56026	TO-48	Triac, 600 VRM, 40A	15.55	15.13	14.71

## Varistors (MOV)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272680CR	NTE1V010	8.5mm	10V <sub>RMS</sub> , 12VDC, 0.8 joules	\$1.07	\$ .87	\$ .85
261286CR	NTE1V020	8.5mm	20V <sub>RMS</sub> , 26VDC, 1.5 joules	1.03	.99	.95
272698CR	NTE1V030	8.5mm	30V <sub>RMS</sub> , 38VDC, 2.3 joules	1.19	1.15	1.11
261294CR	NTE1V130	8.5mm	135V <sub>RMS</sub> , 180VDC, 10 joules	1.08	1.03	.99
273287CR	NTE2V010	16mm	10V <sub>RMS</sub> , 12VDC, 3.5 joules	1.85	1.81	1.76
273295CR	NTE2V025	16mm	25V <sub>RMS</sub> , 31VDC, 7.0 joules	1.85	1.81	1.76
273308CR	NTE2V030	16mm	30V <sub>RMS</sub> , 38VDC, 8.5 joules	1.85	1.81	1.76
273316CR	NTE2V035	16mm	35V <sub>RMS</sub> , 45VDC, 10 joules	1.69	1.40	1.37
273324CR	NTE2V095	16mm	95V <sub>RMS</sub> , 125VDC, 29 joules	1.85	1.81	1.76
261307CR	NTE2V130	16mm	135V <sub>RMS</sub> , 180VDC, 39 joules	1.85	1.79	1.75
273332CR	NTE2V150	16mm	150V <sub>RMS</sub> , 210VDC, 40 joules	2.19	2.14	2.08
261315CR	NTE2V250	16mm	240V <sub>RMS</sub> , 320VDC, 70 joules	2.66	2.54	2.41
273341CR	NTE2V275	16mm	275V <sub>RMS</sub> , 330VDC, 72 joules	2.69	2.62	2.55
274415CR	NTE524V13	23mm	130V <sub>RMS</sub> , 180VDC, 72 joules	2.65	2.40	1.99
274423CR	NTE524V15	23mm	150V <sub>RMS</sub> , 210VDC, 80 joules	2.75	2.68	2.61
261323CR	NTE524V25	23mm	240V <sub>RMS</sub> , 320VDC, 129 joules	2.40	2.35	2.29

## Thermal Fuses

Part No.	Cross Ref.	Description	Dimensions	1	10	25
275346CR	NTE8070	TCO 72°C, 162°F	3.2"L x .157"Dia.	\$1.15	\$1.12	\$1.09
261163CR	NTE8076	TCO 77°C, 171°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275354CR	NTE8081	TCO 84°C, 184°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261171CR	NTE8085	TCO 87°C, 189°F	3.2"L x .157"Dia.	1.27	1.23	1.18
261180CR	NTE8090	TCO 93°C, 200°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261198CR	NTE8096	TCO 98°C, 208°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261201CR	NTE8098	TCO 100°C, 212°F	3.2"L x .157"Dia.	1.13	1.09	1.05
261219CR	NTE8103	TCO 104°C, 220°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275362CR	NTE8108	TCO 109°C, 229°F	3.2"L x .157"Dia.	1.15	1.05	.95
275371CR	NTE8115	TCO 117°C, 243°F	3.2"L x .157"Dia.	1.19	1.16	1.13
261227CR	NTE8118	TCO 121°C, 250°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275389CR	NTE8125	TCO 128°C, 263°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261235CR	NTE8139	TCO 141°C, 286°F	3.2"L x .157"Dia.	1.27	1.23	1.18
275397CR	NTE8149	TCO 152°C, 306°F	3.2"L x .157"Dia.	1.19	1.11	1.03
275400CR	NTE8167	TCO 169°C, 336°F	3.2"L x .157"Dia.	1.15	1.05	.95
261243CR	NTE8181	TCO 184°C, 364°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275418CR	NTE8182	TCO 192°C, 378°F	3.2"L x .157"Dia.	2.69	2.59	2.30
261251CR	NTE8213	TCO 216°C, 421°F	3.2"L x .157"Dia.	1.13	1.09	1.05
275434CR	NTE8226	TCO 228°C, 443°F	3.2"L x .157"Dia.	1.15	1.11	1.07
261260CR	NTE8242	TCO 240°C, 464°F	3.2"L x .157"Dia.	1.13	1.09	1.05

## LEDs

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
260363CR	NTE1866	SIP-9	5-point LED VU scale bar level meter driver	\$2.01	\$1.96	\$1.93
273359CR	NTE3007	T1	Red, 4/pk.	1.65	1.61	1.57
273367CR	NTE3008	T1	Red, 2/pk.	1.03	.84	.82
273375CR	NTE3010	T1	Green, 2/pk.	1.15	1.11	1.06
273383CR	NTE3020	T1 3/4	Red, 2/pk.	1.01	.84	.82
273391CR	NTE3021	T1 3/4	Yellow, 2/pk.	1.22	.99	.97
273404CR	NTE3022	T1 3/4	Red, 2/pk.	1.10	.90	.88
260371CR	NTE3024*	T1 3/4	Green 5mm, 2.1Vf@20mA, 8.7mcd@10mA, 565nm	1.31	1.24	1.19

\* 2 ea. per pack

## LEDs (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273412CR	NTE3028	—	Infrared, PN, GAAS	\$4.99	\$4.87	\$4.75
273586CR	NTE3188	T1 3/4	LED-white clear	2.25	2.07	1.88

## Optoisolators

Package (see pg 41)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273421CR	NTE3032	TO-18	NPN phototransistor detector	\$11.15	\$10.84	\$10.52
273439CR	NTE3034A	—	Phototransistor detector	1.59	1.55	1.51
273447CR	NTE3037	TO-18	NPN phototransistor detector	4.35	4.26	4.16
260380CR	NTE3040	DIP-6	NPN transistor output, 1.5V @ 10mA	1.73	1.68	1.61
260398CR	NTE3041	DIP-6	NPN transistor output, 1.15V @ 10mA	1.75	1.69	1.63
273455CR	NTE3042	DIP-6	NPN transistor	1.65	1.60	1.55
260401CR	NTE3044	DIP-6	NPN darl. trans. output, 1.15V @ 10mA	2.33	2.25	2.19
273463CR	NTE3045	DIP-6	Silicon darlington	2.45	2.39	2.32
260419CR	NTE3047	DIP-6	Triac driver output, 1.15V @ 10mA	2.41	2.04	1.95
273471CR	NTE3048	DIP-6	Triac driver output	3.19	2.89	2.39
273498CR	NTE3083	DIP-6	Optoisolator transistor	2.45	2.39	2.32
273501CR	NTE3084	DIP-6	NPN darlington transistor	2.39	2.33	2.26
273519CR	NTE3086	DIP-8	Dual transistor	3.75	3.66	3.57
273527CR	NTE3089	DIP-6	AC input, transistor	4.30	3.72	3.63
273535CR	NTE3090	DIP-6	Schmitt trigger	3.65	3.57	3.48
273543CR	NTE3098	DIP-4	NPN transistor output	2.09	2.02	1.78
273607CR	NTE3221	DIP-16	4-channel, NPN transistor output	3.35	3.17	2.98
273560CR	NTE3100	—	Opto interrupter	5.39	5.14	4.67

## IC Sockets

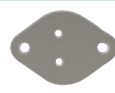
Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	25
272727CR	NTE209	TO-3	Socket, trans, power, 2/pk.	\$2.09	\$2.04	\$1.99
273869CR	NTE409	DIP-14	14-pin DIP socket, 2/pk.	1.25	1.17	1.06
259178CR	NTE416	DIP-16	16-pin DIP socket	2.11	1.85	1.60
259186CR	NTE423	DIP-8	8-pin DIP socket	1.10	1.06	1.02
273885CR	NTE435P6	DIP-6	6-pin DIP socket, 2/pk.	1.39	1.36	1.32

## Insulator Kits

Part No.	Cross Ref.	Pkg.	Description	1	10	25
273877CR	NTE413	TO-3	Insulator kit, 2/pk.	\$1.39	\$1.29	\$1.20
259160CR	NTE422	TO-220	Insulator kit	1.01	.97	.93
273893CR	NTE439	D05/T048	Insulator kit, stud	.55	.54	.47

## NTE Hardware



259194CR



259282CR



259207CR



259215CR



259223CR



259231CR



259240CR



259258CR



259266CR



259274CR

Part No.	Cross Ref.	Description	1	10	25
259151CR	NTE303	1 gram tube heat sink compound (5/pk.)	\$1.63	\$1.55	\$1.48
259194CR	TP0001	TO-3 Thermo pad (5/pk.)	1.39	1.29	1.25
259282CR	TP0002	TO-66 Thermo pad (5/pk.)	1.15	1.12	1.09
259207CR	TP0003	DO-5 Thermo pad (5/pk.)	.82	.78	.75
259215CR	TP0004	TO-126 Thermo pad (5/pk.)	.69	.65	.63
259223CR	TP0005	TO-218 Thermo pad (5/pk.)	1.36	1.33	1.27
259231CR	TP0006	TO-220 Thermo pad (5/pk.)	1.01	.95	.91
259240CR	TP0007	DO-5 Thermo pad (5/pk.)	1.03	.98	.95
259258CR	TP0008	TO-3 Thermo pad (5/pk.)	1.15	1.12	1.09
259266CR	TP0009	TO-36 Thermo pad (5/pk.)	1.38	1.35	1.29
259274CR	TP0010	TO-3PML Thermo pad (5/pk.)	2.41	2.20	1.95

## Optoisolators

New Lower Prices



Part No.	Cross Ref.	Pkg.	Description	1	10	100
40985CR	4N25	DIP-6	Diode, NPN phototransistor	<del>\$.21</del>	<del>\$.166</del>	<del>\$.143</del>
41005CR	4N26	DIP-6	Diode, NPN phototransistor	<del>.25</del>	<del>.193</del>	<del>.176</del>
144240CR	4N27	DIP-6	Diode, NPN phototransistor	<del>.24</del>	<del>.191</del>	<del>.185</del>
41013CR	4N28	DIP-6	Diode, NPN phototransistor	<del>.459</del>	<del>.35</del>	<del>.25</del>
277421CR	4N29	DIP-6	General purpose photodarlington	<del>.26</del>	<del>.21</del>	<del>.193</del>
277456CR	4N30	DIP-6	General purpose photodarlington	<del>.26</del>	<del>.216</del>	<del>.185</del>
41021CR	4N32	DIP-6	Diode, NPN photodarlington	<del>.26</del>	<del>.24</del>	<del>.18</del>
41030CR	4N33	DIP-6	Diode, NPN photodarlington	<del>.25</del>	<del>.24</del>	<del>.22</del>
41056CR	4N35	DIP-6	Diode, NPN phototransistor	<del>.39</del>	<del>.35</del>	<del>.25</del>
277464CR	4N36	DIP-6	General purpose phototransistor	<del>.20</del>	<del>.18</del>	<del>.17</del>
277481CR	4N38	DIP-6	High-voltage phototransistor	<del>.53</del>	<del>.46</del>	<del>.39</del>
277499CR	4N39	DIP-6	Photo SCR optocoupler	<del>\$.109</del>	<del>.91</del>	<del>.82</del>
277501CR	4N40	DIP-6	Photo SCR optocoupler	<del>.93</del>	<del>.84</del>	<del>.75</del>
277510CR	6N135	DIP-8	High-speed transistor optocoupler	<del>.54</del>	<del>.44</del>	<del>.36</del>
42471CR	6N136	DIP-8	High speed transistor optocoupler	<del>.65</del>	<del>.55</del>	<del>.49</del>
113911CR	6N137	DIP-8	High-speed logic optocoupler	<del>.71</del>	<del>.60</del>	<del>.453</del>
42489CR	6N138	DIP-8	Low input curr., hi-gain split darlington	<del>.65</del>	<del>.55</del>	<del>.41</del>
113929CR	6N139	DIP-8	High-speed, high-gain darlington	<del>.65</del>	<del>.55</del>	<del>.445</del>
277561CR	H11A1	DIP-6	General purpose phototransistor	<del>.27</del>	<del>.22</del>	<del>.20</del>
18825CR	H11AA1	DIP-6	Dual infrared diode, NPN phototransistor	<del>.47</del>	<del>.407</del>	<del>.29</del>
277587CR	H11A2	DIP-6	General purpose phototransistor	<del>.30</del>	<del>.21</del>	<del>.17</del>
277595CR	H11A3	DIP-6	General purpose phototransistor	<del>.34</del>	<del>.26</del>	<del>.21</del>
281201CR	H11A4	DIP-6	General purpose phototransistor	<del>.34</del>	<del>.30</del>	<del>.23</del>
114016CR	H11C1	DIP-6	Photo SCR optocoupler	<del>.79</del>	<del>.79</del>	<del>.79</del>
18833CR	H11C3	DIP-6	Photo SCR optocoupler	<del>.86</del>	<del>.72</del>	<del>.58</del>
114008CR	H11C4	DIP-6	Photo SCR optocoupler	<del>.83</del>	<del>.83</del>	<del>.83</del>
277608CR	H11C6	DIP-6	Photo SCR optocoupler	<del>.89</del>	<del>.75</del>	<del>.61</del>
113996CR	H11F1	DIP-6	Isolated FET	<del>\$.193</del>	<del>1.79</del>	<del>1.49</del>
277712CR	H11G1	DIP-6	High-voltage photodarlington	<del>.51</del>	<del>.47</del>	<del>.39</del>
277721CR	H11G2	DIP-6	High-voltage photodarlington	<del>.67</del>	<del>.55</del>	<del>.42</del>
277747CR	H11G3	DIP-6	High-voltage photodarlington	<del>.62</del>	<del>.52</del>	<del>.40</del>
113988CR	H11L1	DIP-6	Schmitt trigger output photocoupler	<del>.78</del>	<del>.65</del>	<del>.49</del>
138069CR	ISP817-3	DIP-4	Low power transistor output	<del>.99</del>	<del>.89</del>	<del>.69</del>
24918CR	MCT6	DIP-8	Dual channel NPN phototransistor	<del>.56</del>	<del>.52</del>	<del>.47</del>
26278CR	MOC3010	DIP-6	Bilateral triac driver	<del>.56</del>	<del>.52</del>	<del>.345</del>
95020CR	MOC3011	DIP-6	Bilateral triac driver	<del>.77</del>	<del>.58</del>	<del>.39</del>
277763CR	MOC3012	DIP-6	Random phase triac driver	<del>.76</del>	<del>.58</del>	<del>.44</del>
277780CR	MOC3020	DIP-6	Random phase triac driver	<del>.54</del>	<del>.41</del>	<del>.31</del>

## Optoisolators (Continued)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
95038CR	MOC3021	DIP-6	Bilateral triac driver	<del>\$.53</del>	<del>\$.472</del>	<del>\$.357</del>
277801CR	MOC3022	DIP-6	Random phase triac driver	<del>.49</del>	<del>.45</del>	<del>.38</del>
277819CR	MOC3023	DIP-6	Random phase triac driver	<del>\$.76</del>	<del>.51</del>	<del>.47</del>
26294CR	MOC3031	DIP-6	Zero crossing triac driver	<del>1.06</del>	<del>.99</del>	<del>.95</del>
113953CR	MOC3032	DIP-6	Zero crossing triac driver	<del>.61</del>	<del>.55</del>	<del>.52</del>
277827CR	MOC3033	DIP-6	Zero crossing triac driver	<del>.74</del>	<del>.66</del>	<del>.60</del>
277835CR	MOC3041	DIP-6	Zero crossing triac driver	<del>.69</del>	<del>.61</del>	<del>.52</del>
113961CR	MOC3042	DIP-6	Zero crossing triac driver	<del>.65</del>	<del>.58</del>	<del>.50</del>
277843CR	MOC3043	DIP-6	Zero crossing triac driver	<del>.59</del>	<del>.53</del>	<del>.46</del>
277860CR	MOC3051	DIP-6	Random phase triac driver	<del>.73</del>	<del>.66</del>	<del>.60</del>
277894CR	MOC3052	DIP-6	Random phase triac driver	<del>.87</del>	<del>.82</del>	<del>.79</del>
277915CR	MOC3061	DIP-6	Zero crossing phototriac driver	<del>.64</del>	<del>.59</del>	<del>.50</del>
277931CR	MOC3062	DIP-6	Zero crossing phototriac driver	<del>.80</del>	<del>.68</del>	<del>.55</del>
133874CR	MOC3063	DIP-6	Zero crossing triac driver	<del>1.25</del>	<del>1.12</del>	<del>.99</del>
160338CR	PS2501-4	DIP-16	Photo darlington & transistor/detector	<del>1.09</del>	<del>1.02</del>	<del>.88</del>
160362CR	PS2502-4	DIP-16	Photo darlington & transistor/detector	<del>1.76</del>	<del>1.61</del>	<del>1.39</del>

## Slotted Optical Switches



Part No.	Cross Ref.	Pkg.	Description	1	10	100
114091CR	H21A1	4-pin w/ tab	Single channel slotted interrupter	<del>\$.69</del>	<del>\$.64</del>	<del>\$.56</del>
278011CR	H21A2	4-pin w/ tab	Phototransistor optical interrupter	<del>.99</del>	<del>.71</del>	<del>.58</del>
278070CR	H21B1	4-pin w/ tab	Photodarlington optical interrupter	<del>.87</del>	<del>.78</del>	<del>.71</del>
278088CR	H21B2	4-pin w/ tab	Photodarlington optical interrupter	<del>1.09</del>	<del>.79</del>	<del>.73</del>
278096CR	H21B3	4-pin w/ tab	Photodarlington optical interrupter	<del>1.35</del>	<del>1.19</del>	<del>1.09</del>
114104CR	H22A1	4-pin no tab	Slotted optical switch	<del>.61</del>	<del>.61</del>	<del>.61</del>
278029CR	H22A2	4-pin no tab	Slotted optical switch	<del>1.15</del>	<del>1.05</del>	<del>.93</del>
278045CR	H22A3	4-pin no tab	Slotted optical switch	<del>\$.91</del>	<del>.74</del>	<del>.623</del>
278109CR	H22B1	4-pin no tab	Photodarlington optical interrupter	<del>.68</del>	<del>.61</del>	<del>.56</del>
278117CR	H22B2	4-pin no tab	Photodarlington optical interrupter	<del>.87</del>	<del>.71</del>	<del>.64</del>
196058CR	ITR-8105	4-pin no tab	Slotted optical switch	<del>\$.175</del>	<del>.48</del>	<del>.42</del>

Visit [www.Jameco.com](http://www.Jameco.com) for detailed specifications.

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## CdS Photocells

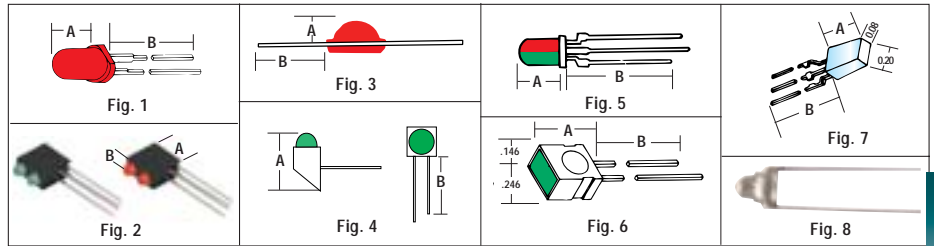
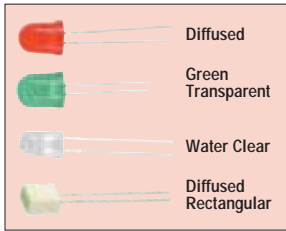
- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C

- Soldering: 230°C for 3 seconds
- Cadmium Sulfide (CdS)

Quantity  
**SAVE**

	Part No.	Mfr. Ref. No.	Rating		Resistance (Ω)		Size (inches)		Lead Spacing (inches)	Lead Length (inches)	Pricing			
			Vp	mW	Dark	Light	A	B			1	10	100	1000
 120299CR	136055CR	CDST08	50	200	100k	10k	0.40	0.44	0.30	1.50	<del>\$.89</del>	<del>\$.79</del>	<del>\$.69</del>	<del>\$.60</del>
	202366CR	CDS0029001	150	90	300k	4k	0.14	0.17	0.10	1.02	<del>1.69</del>	<del>1.57</del>	<del>1.29</del>	<del>.99</del>
	120310CR	CDS0029004	150	90	2M	27k	0.14	0.17	0.10	1.44	<del>1.45</del>	<del>1.20</del>	<del>1.09</del>	<del>.99</del>
	202374CR	CDS0029006	150	90	5M	80k	0.14	0.17	0.10	1.02	<del>1.79</del>	<del>1.61</del>	<del>1.29</del>	<del>.97</del>
	202391CR	CDS0029203	150	90	10M	5k	0.14	0.17	0.10	1.02	<del>1.49</del>	<del>1.35</del>	<del>1.19</del>	<del>1.09</del>
	202382CR	CDS0029008	150	90	20M	10k	0.14	0.17	0.10	1.02	<del>1.49</del>	<del>1.29</del>	<del>1.09</del>	<del>.79</del>
 202438CR	202420CR	CDS0018003	150	100	500k	16k	0.17	0.20	0.13	1.02	<del>1.69</del>	<del>1.49</del>	<del>1.35</del>	<del>1.15</del>
	202403CR	CDS0018001	150	100	200k	3k	0.17	0.20	0.13	1.02	<del>1.49</del>	<del>1.35</del>	<del>1.19</del>	<del>1.09</del>
	202411CR	CDS0018006	150	100	5M	80k	0.17	0.20	0.13	1.02	<del>.69</del>	<del>.65</del>	<del>.59</del>	<del>.55</del>
	202438CR	CDS0037004	200	150	500k	15k	0.25	0.29	0.20	1.02	<del>1.49</del>	<del>1.29</del>	<del>1.15</del>	<del>.99</del>
	120301CR	CDS0037001	200	150	300k	3k	0.25	0.29	0.20	1.02	<del>1.79</del>	<del>1.59</del>	<del>1.45</del>	<del>1.29</del>
	120299CR	CDS0045001	350	400	300k	8k	0.37	0.43	0.30	1.44	<del>1.79</del>	<del>1.59</del>	<del>1.45</del>	<del>1.29</del>
	202454CR	CDS0045003	350	400	1M	12k	0.37	0.43	0.30	1.44	<del>1.69</del>	<del>1.55</del>	<del>1.35</del>	<del>1.15</del>





Optos

## Standard-Output LEDs

Call for OEM PRICING – we carry major manufacturers.

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A*	B*					1	10	100	1000
206480CR	LVY2041	1	Yellow	Yellow transparent	T1	.119/3	0.17	0.69	0.08	2.3 @ 20	450 @ 20	595	*	\$ .14	\$ .12	\$ .10
34657CR	LY2040*	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.08	2.3 @ 20	15 @ 10	585	*	.13	.11	.075
206498CR	LHR2041	1	Red	Red transparent	T1	.119/3	0.17	0.69	0.08	2.0 @ 20	350 @ 20	660	*	.15	.12	.09
114673CR	LH2043*	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	0.07	2.3 @ 20	12 @ 10	697	*	.19	.15	.12
94529CR	LH2040*	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	0.07	2.3 @ 20	4.5 @ 10	697	*	.19	.15	.12
175679CR	LVG2041	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.08	2.2 @ 20	129 @ 20	565	*	.15	.11	.08
114681CR	LVG2043*	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	0.07	2.2 @ 20	129 @ 20	565	*	.09	.07	.055
34606CR	LSG2040*	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	0.08	2.2 @ 20	15 @ 10	560	*	.15	.11	.08
211087CR	LG2040	1	Green	Green diffused	T1	.119/3	0.13	1.10	0.10	2.1 @ 20	12.6 @ 10	565	*	.11	.094	.071
94553CR	LHG2062	1	Red/Green	White diffused bi-color/bi-state <sup>†</sup>	T1	.119/3	0.18	1.06	0.08	2.3 @ 20	3 & 15 @ 10	697/565	.29	.25	.21	.16
137411CR	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	0.10	4.8 @ 20	10 @ 20	430	2.49	2.25	1.95	1.69
107393CR	LE3330	1	Orange Red	Orange diffused (XC556A)	T1 3/4	.197/5	0.30	1.02	0.08	2.3 @ 20	12 @ 10	635	*	.11	.07	.06
206501CR	LVY3331	1	Yellow	Yellow transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.2 @ 20	700 @ 20	595	*	.19	.15	.12
175695CR	LVY3333*	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	60 @ 10	585	*	.19	.15	.12
34825CR	LY3330*	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.07	2.3 @ 20	12 @ 10	585	*	.19	.15	.12
206519CR	LHR3331	1	Red	Red transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.0 @ 20	660 @ 20	550	*	.19	.15	.12
138860CR	LFH3363	1	Red	Water clear/flash <sup>†</sup>	T1 3/4	.197/5	0.35	1.06	0.10	3-12V	9	697	.49	.45	.39	.29
34745CR	LH3333	1	Red	Water clear (XC554R)	T1 3/4	.197/5	0.30	1.00	0.08	2.3 @ 20	7.5 @ 10	697	*	.15	.11	.065
94511CR	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.08	2.3 @ 20	3 @ 10	697	*	.17	.13	.10
34690CR	LFH3360*	1	Red	Red diffused/flash <sup>†</sup> (XC5410) <sup>†</sup>	T1 3/4	.197/5	0.30	0.94	0.07	3-12V	2.8	697	.49	.45	.39	.35
134332CR	LT18B3-81UR	1	Blue	Water clear (383UBC)	T1 3/4	.197/5	0.30	0.93	0.10	3.8 @ 20	350 @ 20	428	2.65	2.45	2.25	1.95
137613CR	LSBI3333	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	0.08	3.8 @ 20	160 @ 20	430	2.27	2.04	1.63	1.22
138691CR	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	0.08	4.8 @ 20	10 @ 20	430	2.14	2.04	1.95	1.79
153154CR	LVG3333	1	Green	Water clear (HLMP-8509)	T1 3/4	.197/5	0.36	0.90	0.10	2.3 @ 20	500 @ 20	565	*	.14	.10	.08
11359CR	LG3333*	1	Green	Water clear (BG5704)	T1 3/4	.197/5	0.30	1.04	0.07	2.3 @ 20	100 @ 20	565	*	.22	.20	.16
94561CR	LFG3360	1	Green	Green diff./flash <sup>†</sup> (XC5408) <sup>†</sup>	T1 3/4	.197/5	0.30	1.05	0.08	3-12V	17	565	.59	.53	.48	.43
34761CR	LG3330*	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.09	2.3 @ 20	12 @ 10	565	*	.15	.14	.10
34711CR	LEG3362*	1	Red/Green	White diffused bi-color/bi-state <sup>†</sup>	T1 3/4	.197/5	0.30	1.01	0.09	2.3 @ 20	7.5 & 8 @ 20	635/565	.33	.28	.22	.19
119634CR	LHR3930	1	Red	Red diffused Jumbo (LT9952L)	T2 1/2	.315/8	0.44	0.84	0.07	2.0 @ 20	100 @ 20	660	.23	.20	.15	.13
137621CR	LVG3930	1	Green	Green diffused Jumbo	T2 1/2	.315/8	0.43	1.04	0.07	2.3 @ 20	40 @ 20	565	.25	.20	.15	.12
138683CR	LHR3630	1	Red	Red diffused XJumbo (XC10R)	T3 1/4	.394/10	0.40	1.04	0.10	2.0 @ 20	100 @ 20	660	.29	.26	.22	.18
98984CR	LVG3630	1	Green	Green diffused XJumbo (XC10G)	T3 1/4	.394/10	0.40	1.07	0.08	2.3 @ 20	40 @ 20	565	.27	.26	.19	.13
98992CR	LV3630	1	Yellow	Yellow diff. XJumbo (XC10Y)	T3 1/4	.394/10	0.54	1.04	0.08	2.3 @ 20	15 @ 20	585	.29	.25	.19	.15
235416CR	LA45B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.40	0.18	0.10	1.7 @ 20	15 @ 10	565	1.29	1.15	.89	.59
136274CR	LA44B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	15 @ 10	565	.49	.45	.39	.29
235424CR	LA45B/2I	2	Red	Red diffused (dual)	T1	.119/3	0.40	0.18	0.10	1.7 @ 20	12 @ 10	630	1.29	1.15	.89	.59
136282CR	LA44B/2I	2	Red	Red diffused (dual)	T1	.119/3	0.38	0.17	0.10	2.3 @ 20	12 @ 10	630	.49	.45	.39	.29
104248CR	LA93B/H-1*	4	Red	Red diffused (XC410R)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	6.5 @ 10	697	*	.23	.19	.17
104256CR	LA93B/G-1*	4	Green	Green diffused (XC410G)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	30 @ 10	565	*	.23	.19	.17
104264CR	LA93B/Y-1	4	Yellow	Yellow diffused (XC410Y)	T1 3/4	.197/5	0.35	0.89	0.08	2.3 @ 20	25 @ 10	585	.35	.29	.25	.19
34673CR	LHG3392*	5	Red/Green	White diff. bi-color/tri-state	T1 3/4	.197/5	0.30	1.02	0.03	2.3 @ 20	3 & 12 @ 10	697/565	.24	.22	.20	.14
94545CR	LG25030 <sup>††</sup>	6	Green	Green diff. rect. (XC57124G)	3.5 x 6	—	0.26	1.06	0.08	2.3 @ 20	5.2 @ 20	565	*	.19	.16	.15
104889CR	LEG5292 <sup>††</sup>	7	Red/Green	White diff. bi-color rectangular	2 x 5	—	0.27	1.02	0.08	2.3 @ 20	6/6 @ 10	695/565	*	.21	.179	.134

<sup>†</sup> Reverse polarity to change color <sup>††</sup> Voltage shown is operating voltage range; no current limiting resistor required <sup>†††</sup> For Mounting Hardware see pg 47

### Special Limited Offers from Other Manufacturers

202489CR	MVL-301Y	1	Yellow	Yellow diffused	T1	.119/3	0.14	1.12	0.10	2.1 @ 20	9.0 @ 10	585	*	\$ .171	\$ .145	\$ .109
211086CR	LTL-4231N-022	1	Green	Green diffused	T1	.119/3	0.13	1.10	0.10	2.1 @ 20	12.6 @ 10	565	*	.099	.084	.063
202471CR	MVL-301HR	1	Orange Red	Red diffused	T1	.119/3	0.14	1.12	0.10	2.0 @ 20	9.0 @ 10	640	*	.171	.145	.109
210825CR	BUV-5MIQ1	1	Orange Red	Red diffused	T1 3/4	.197/5	0.30	1.07	0.08	2.1 @ 20	600 @ 20	615	.44	.405	.351	.315
135597CR	LTL307E*	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	1.00	0.07	2.0 @ 20	19 @ 10	635	*	.144	.09	.081
26745CR	MCDL-170EC	3	Red	Water clear	T 3/4	.083/2.1	0.06	0.25	0.11	2.1 @ 20	7 @ 10	635	.23	.207	.189	.18
176532CR	MV50G	8	Green	Water clear	T 3/4	.069/1.7	0.06	0.40	0.08	2.1 @ 20	300 @ 20	568	*	.108	.097	.088

\*10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 47





## High-Output LEDs

• Typical DC forward current 20mA

See page 47 for LED Mounting Hardware



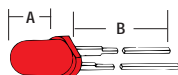
Fig. 1



Fig. 2

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A"	B"					1	10	100	1000
217525CR	MCDPW-3004C	1	White	Water clear	T1	.119/3	0.18	1.00	0.10	3.8 @ 20	3000 @ 20	—	\$2.99	\$2.85	\$2.69	\$2.55
142893CR	BUV-5E1WK4-B	1	White	Water clear	T1 3/4	.197/5	0.34	0.79	0.08	3.5 @ 20	3700 @ 20	—	3.95	3.59	2.95	2.75
183231CR	BUV-5C14WK4-B	1	White	Water clear	T1 3/4	.197/5	0.30	1.06	0.08	3.5 @ 20	3000 @ 20	—	2.95	2.65	2.39	2.15
183222CR	MCDL-513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	0.08	3.6 @ 20	3000 @ 20	470	3.25	2.95	2.65	2.39
183214CR	MCDPG-503PC1	1	Green	Water clear	T1 3/4	.197/5	0.30	1.04	0.08	3.5 @ 20	2200 @ 20	515	2.95	2.65	2.39	2.15
131895CR	TLSH180P	1	Orange	Water clear	T1 3/4	.197/5	0.39	0.80	0.10	2.1 @ 20	10000 @ 20	623	2.49	2.19	1.95	1.79
197683CR	BVT-5E1QT4ER	1	Orange Red	Water clear	T1 3/4	.197/5	0.29	1.08	0.08	2.3 @ 20	4650 @ 20	634	.69	.59	.49	.39
197616CR	BUV-5E1QH4E	1	Red	Water clear	T1 3/4	.197/5	0.30	1.05	0.08	1.8 @ 20	2180 @ 20	630	.39	.35	.29	.25
152864CR	BUV-501RD4	2	Red Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	1000 @ 20	660	.29	.24	.19	.15
197675CR	BVT-5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.08	0.08	2.3 @ 20	2800 @ 20	592	.45	.36	.29	.27
197641CR	BVT-529TT3E	2	Yellow	Yellow transparent	Oval	.170/.220	0.29	1.04	0.08	2.3 @ 20	7800 @ 20	592	.69	.62	.55	.49

## HLMP Series LEDs



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
						A"	B"					1	10	100	1000
253278CR	HLMP-1301	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.9 @ 10	5.4 @ 10	635	*	\$ .137	\$ .112	\$ .098
253366CR	HLMP-1321	Red	Tinted	T1	.119/3	0.19	1.00	0.10	1.9 @ 10	30 @ 10	635	*	.167	.13	.10
253551CR	HLMP-1340	Red	Clear	T1	.119/3	0.19	1.00	0.10	1.9 @ 20	55 @ 10	635	*	.122	.105	.076
253690CR	HLMP-1700	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.7 @ 2	2.1 @ 2	635	*	.132	.105	.086
253702CR	HLMP-K101	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.8 @ 20	45 @ 20	645	*	.203	.133	.106
253711CR	HLMP-K105	Red	Clear	T1	.119/3	0.19	1.00	0.10	2.2 @ 20	65 @ 20	645	*	.169	.152	.113
253729CR	HLMP-K150	Red	Diffused	T1	.119/3	0.19	1.00	0.10	1.8 @ 1	2.0 @ 1	645	*	.216	.171	.097
253631CR	HLMP-1503	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.1 @ 10	1.0 @ 10	565	*	.103	.076	.061
253649CR	HLMP-1521	Green	Tinted	T1	.119/3	0.19	1.00	0.10	2.7 @ 10	6.7 @ 10	565	*	.216	.171	.095
253657CR	HLMP-1523	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.1 @ 10	7.0 @ 10	565	.316	.244	.171	.095
253665CR	HLMP-1540	Green	Clear	T1	.119/3	0.19	1.00	0.10	45 @ 20	2.2 @ 20	565	*	.132	.105	.086
253681CR	HLMP-1790	Green	Diffused	T1	.119/3	0.19	1.00	0.10	2.2 @ 2	2.3 @ 2	565	*	.132	.105	.099
253673CR	HLMP-1719	Yellow	Diffused	T1	.119/3	0.19	1.00	0.10	2.5 @ 2	2.1 @ 2	583	*	.132	.105	.086
253614CR	HLMP-1401	Yellow	Diffused	T1	.119/3	0.19	1.00	0.10	2.0 @ 10	2.2 @ 10	583	*	.137	.112	.098
253622CR	HLMP-1440	Yellow	Clear	T1	.119/3	0.19	1.00	0.10	2.1 @ 20	45 @ 20	583	*	.122	.105	.076
253745CR	HLMP-3300	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 10	3.5 @ 10	635	.335	.263	.188	.113
253753CR	HLMP-3301	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.4 @ 10	5.4 @ 10	635	*	.16	.143	.095
253788CR	HLMP-3750	Red	Clear	T1 3/4	.197/5	0.36	0.90	0.10	1.9 @ 20	125 @ 20	635	*	.141	.105	.07
253817CR	HLMP-4700	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	1.7 @ 2	2.3 @ 2	626	.31	.244	.171	.095
253841CR	HLMP-D101	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 20	70 @ 20	645	*	.207	.171	.119
253850CR	HLMP-D150	Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	1.8 @ 1	3.0 @ 1	645	.31	.244	.171	.096
11797CR	QLMP-D141*	Red	Water Clear	T1 3/4	.197/5	0.29	1.05	0.07	2.0 @ 20	350 @ 20	660	*	.19	.16	.12
253868CR	HLMP-D401	Orange Red	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.4 @ 10	5.4 @ 10	600	*	.14	.127	.126
203553CR	HLMP-4100	Orange Red	Water Clear	T1 3/4	.197/5	0.33	1.07	0.08	2.1 @ 20	600 @ 20	615	.29	.25	.20	.15
253770CR	HLMP-3507	Green	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.1 @ 10	4.2 @ 10	565	*	.169	.143	.095
253809CR	HLMP-3950	Green	Clear	T1 3/4	.197/5	0.36	0.90	0.10	1.5 @ 20	265 @ 20	565	*	.244	.171	.095
253833CR	HLMP-4740	Green	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.2 @ 2	2.3 @ 2	565	*	.244	.171	.124
253761CR	HLMP-3401	Yellow	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.0 @ 10	5.7 @ 10	583	.29	.244	.171	.095
253796CR	HLMP-3850	Yellow	Clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	140 @ 20	583	*	.244	.171	.098
253825CR	HLMP-4719	Yellow	Diffused	T1 3/4	.197/5	0.36	1.00	0.10	2.5 @ 2	2.1 @ 2	585	*	.226	.171	.096

\*10 pcs. in LEDs &amp; LED Mounting Hardware cabinet kit, pg 47

## Practical Electronics Book for Inventors

McGraw-Hill Publishing

Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares it with other similar devices. Provides an easy to understand overview of basic components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on. (604 pages, 2000)

• Size: 8.4" x 11" • Weight: 2.8 lbs.



Part No.	Description	Price
174529CR	Practical Electronics Book for Inventors .....	\$39.95

## Electronic Pocket Reference

Third Edition

McGraw-Hill Publishing

A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semi-conductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

• Size: 4.0" x 6.0" • Weight: 0.9 lbs.



Part No.	Description	Price
174481CR	Electronics Pocket Reference .....	\$29.95

- Typical DC forward current 20mA

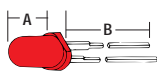
Ledtech is a QS9000 and  
ISO-9000 Certified Company

Fig. 1

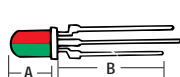


Fig. 2

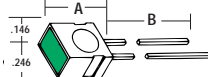


Fig. 3



152805CR



151415CR

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter (in./mm)	Dimensions		Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A"	B"					1	10	100	1000
156953CR	LT0373-41	1	Red Super Bright	Water clear	T1	.119/3	0.21	1.07	0.08	1.7 @ 20	600 @ 20	660	\$.24	\$.22	\$.17	\$.14
156945CR	LT0362-25-D61	2	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.08	2.1 @ 20	2.7/13.3 @ 20	700/567	.29	.25	.19	.15
152750CR	LT0344R-41	1	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	52.9 @ 10	635	*	.19	.16	.12
152784CR	LT0341R-41	1	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	15.5 @ 10	635	*	.17	.15	.12
152768CR	LT0324-41	1	Green	Green clear	T1	.119/3	0.20	0.89	0.10	2.1 @ 20	45 @ 20	567	*	.12	.09	.07
156929CR	LT0321-41-HE	1	Green	Green diffused	T1	.118/3	0.16	0.88	0.10	2.1 @ 20	32 @ 20	567	*	.18	.11	.10
156937CR	LT0331-41	1	Yellow	Yellow diffused	T1	.119/3	0.20	0.95	0.10	2.1 @ 20	11 @ 20	585	*	.14	.10	.07
136493CR	LT0333-41*	1	Yellow	Water clear	T1	.119/3	0.20	0.95	0.10	2.3 @ 20	38 @ 20	589	*	.19	.11	.09
215597CR	LT2K33-81-UC9T	1	Yellow	Water clear	T1 3/4	.197/5	0.31	0.89	0.10	2.2 @ 20	5000 @ 20	592	.59	.55	.49	.45
261622CR	LT1873-81-UR-P22	1	Red	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	1200 @ 20	660	.21	.20	.19	.15
242843CR	LT1811-81	1	Red	Red diffused	T1 3/4	.197/5	0.30	0.88	0.10	2.1 @ 20	4.1 @ 20	700	*	.12	.10	.06
152805CR	LT1873-81-UR	1	Red Ultra Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	1.9 @ 20	2000 @ 20	660	.29	.25	.19	.15
153138CR	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.10	2.1 @ 20	2500 @ 20	621	.49	.44	.39	.35
302033CR	LT1814-81	1	Orange	Red diffused	T1 3/4	.197/5	0.34	0.88	0.10	2.1 @ 20	23.1 @ 20	635	*	.105	.071	.054
152856CR	LT1841R-81	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	23 @ 20	635	*	.17	.15	.13
156961CR	LT1823-81-HE	1	Green	Water clear	T1 3/4	.197/5	0.34	0.87	0.10	2.1 @ 20	500 @ 20	567	*	.17	.15	.12
152821CR	LT1821-81-HE	1	Green	Green diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	96 @ 20	567	*	.16	.12	.09
175687CR	LT0524-81	1	Green	Green transparent	T1 3/4	.197/5	0.24	1.07	0.07	2.1 @ 20	44 @ 20	567	*	.16	.12	.09
152792CR	LT1833-81-M1	1	Ylw Super Bright	Water clear	T1 3/4	.197/5	0.34	0.89	0.10	2.1 @ 20	1040 @ 20	593	.26	.24	.19	.14
152830CR	LT1831-81-UR	1	Ylw Ultra Bright	Yellow diffused	T1 3/4	.197/5	0.34	0.89	0.10	2.0 @ 20	424 @ 20	593	.26	.24	.20	.14
34850CR	LT7341R-81†	3	Orange Red	Red diffused rectangular	3.5 x 6	—	0.27	0.85	0.07	2.0 @ 20	5.2 @ 20	635	.26	.22	.16	.15

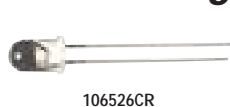
## White Diffused Backlight

151415CR	LT1F24-A2-S1	—	Green	Backlight, diffused	2.05"L x 0.78"H x 0.09"T	8-pin	4.2 @ 20	140 @ 20	567	\$2.95	\$2.65	\$2.39	\$1.95
302535CR	LT1F24-A2-S8	—	Green	Backlight, diffused	1.56"L x 0.98"H x 0.15"T	8-pin	4.2 @ 20	24.8 @ 20	567	2.95	2.65	2.39	1.95

\*10 pcs. in LEDs &amp; LED Mounting Hardware cabinet kit, see below † For Mounting Hardware, see below

## Infrared and Visible Light Emitters and Detectors

- Use for remote control and/or for fiber optics
- P/N 133946CR:  
Can be used with cameras, see page 181  
(peak emission wavelength: 940nm @ 20mA)



106526CR

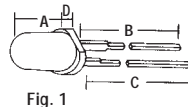


Fig. 1

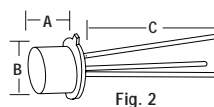


Fig. 2



172321CR (Fig. 3)

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size	Diameter inch/mm	Dimensions (inches)				Vf @ If	nm	mWatts	Pricing			
						A	B	C	D				1	10	100	1000
112150CR	LIR2043	1	Infrared emitter diode (GaAs)	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	5	\$.22	\$.18	\$.14	\$.12
133946CR	SLI-0308CP	1	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.3V @ 50mA	940	4	.62	.53	.40	.31
112176CR	LPT2023	1	Infrared phototransistor	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	.39	.29	.19	.15
106526CR	LVIR3333	1	Infrared emitter diode (GaAs)	T1 3/4	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	8	.39	.29	.19	.15
112168CR	LPT3313	1	Infrared phototransistor	T1 3/4	0.200/5	0.31	1.05	1.10	0.04	—	940	—	.36	.30	.24	.20
120221CR	BPW77NA	2	Visible light phototransistor	TO-18	—	0.24	0.19	0.52	—	—	850	—	1.59	1.55	1.49	1.39
172321CR	OP133	3	Infrared emitter diode (GaAs)	TO-46	—	0.22	0.18	1.05	0.20	1.4V @ 100mA	935	5	2.15	1.95	1.45	1.42

## LEDs Cabinet Kit and LED Mounting Hardware

## LEDs &amp; LED Mounting Hardware Kit

Includes:

- 20-drawer component cabinet (81701CR),
- 20 clear plastic drawers (85454CR),
- 20 clear dividers (85446CR), pg 120 and labels
- 10 ea. standard-output LEDs (34657CR, 114673CR, 114681CR, 34606CR, 175695CR, 34825CR, 34690CR, 11359CR, 34761CR, 34711CR, 104248CR, 104256CR, 34673CR), pg 47 and 136493CR, above
- 10 ea. HLMP series LEDs (11797CR), pg 46
- 10 ea. LED lens mount (14277CR), right
- 100 ea. LEDs (94529CR, 135597CR), pg 45
- 100 ea. LED mounting hardware (95513CR, 23077CR), right

SAVE \$26

Part No.	Description	Wt. (lbs.)	1	10
84996CR	560 pcs. kit	5.0	\$66.95	\$60.25

## LED Mounting Hardware

- P/N 95521CR: for use with P/N 94545CR and 34850CR, pg 45



95513CR



23077CR



95521CR

Quantity  
SAVEPrepackaged: order in  
increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing		
						10	100	1000
95513CR	LMH100	T1 snap-in	Black	.185"	Up to .070"	\$0.08	\$0.07	\$0.04
23077CR	LMH200	T1 3/4 ring & clip	Black	.257"	Up to .125"	.15	.135	.12
95521CR	LMH250	Rect. snap-in	Black	.306" x .202"	Up to .092"	.20	.17	.12†



## T1 3/4 Ciplite® LED Lens Mount

- Requires no assembly tools, just snap in
- Material: lens – polycarbonate; spacer – nylon
- Increases viewing angle to 180°
- Helps guard against electrostatic discharge up to 16kV



29612CR



Fig. 1 (5mm)



Fig. 2 (5mm)

Part No.	Product No.	Description	Color	Fig.	Mounting Hole Dia.	Panel Thickness	Pricing			
							1	10	100	1000
14277CR	CLF280CTP	T1 3/4	Clear	1	.25"	.063" – .125"	\$.25	\$.19	\$.16	\$.14
29612CR	CLF280RTP	T1 3/4	Red	1	.25"	.063" – .125"	.25	.19	.16	.14
124927CR	CLB300CTP	T1 3/4	Clear	2	.25"	.031" – .25"	.25	.19	.16	.14



## LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

### Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W

Quantity  
**SAVE**



## 7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing			
										1	10	100	1000
24731CR	LSD3021-11	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	\$ .87	\$ .70	\$ .50	\$ .47
24740CR	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	.79	.72	.64	.58
151976CR	LTS312AY	.300"	Yellow	CA	11	2.8 @ 20	2.0 @ 10	585	LHDP	.34	.31	.28	.26
24782CR	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
17187CR	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80	.72	.65
17208CR	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
104213CR	LSD5124-10	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.89	.80	.71	.55
199531CR	LSD5111-11	.560"	Red	CC	10	2.1 @ 20	0.8 @ 20	697	RHDP	.99	.89	.71	<b>.53</b>
24715CR	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24723CR	LDD5111-11	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
200379CR	LB602VAGI	.560"	Red	2-digit CA	18	2.0 @ 10	16 @ 10	650	RHDP	<b>1.25</b>	<b>1.12</b>	<b>.90</b>	<b>.67</b>
24694CR	LDD5124	.560"	Orange Red	2-digit CA	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.39	1.25	.99	<b>.75</b>
24707CR	LDD5114-20	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.35	1.15	.99	.89
200539CR	ELD556YWA	.560"	Yellow	2-digit CA	18	2.0 @ 20	1.9 @ 10	590	RHDP	<b>1.25</b>	<b>1.12</b>	<b>.90</b>	<b>.67</b>
225963CR	KW3-562A2B	.560"	Green	3-digit CA	28	2.2 @ 20	15 @ 20	568	RHDP	2.39	2.15	1.95	1.25
199582CR	LC56311	.560"	Yellow	CC	8	2.1 @ 20	5.2 @ 20	589	RHDP	1.49	1.25	1.09	<b>.79</b>
18737CR	LSD816-11	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.49	1.35	1.19	.99
18753CR	LSD8151-10	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	RHDP	1.49	1.35	1.19	.99
206017CR	SC08-11HWA	.800"	Red	CC	13	2.0 @ 20	.36 @ 10	700	RHDP	1.49	1.35	1.19	.94
176559CR	C8021-1	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.44	.35	<b>.26</b>
97172CR	LSD10061-10	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.25	1.12	.99
97199CR	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19	4.69	4.19
97201CR	LSD23255-10	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95	3.25	2.95
202518CR	LSD30165-20	3.0"	Orange Red	CA	10	8 @ 20	4.5 @ 10	635	RHDP	7.39	6.99	6.65	6.29
202542CR	LSD30155-20	3.0"	Orange Red	CC	10	8 @ 20	4.5 @ 10	635	RHDP	<b>5.49</b>	<b>4.95</b>	<b>4.45</b>	<b>4.05</b>
105591CR	LSD40054-20†	4.0"	Orange Red	CC	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29	7.49	6.49
202500CR	LSD40064-20	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 10	635	RHDP	10.49	9.49	8.59	7.79
202526CR	LSD50065-20	5.0"	Red	CA	10	17 @ 20	45 @ 10	660	RHDP	34.99	27.89	25.29	22.79
202534CR	LSD50055-20	5.0"	Red	CC	10	17 @ 20	45 @ 10	660	RHDP	17.95	14.35	12.95	11.65

† 5 diodes per segment

## Dot Matrix Displays

Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing			
											1	10	100	1000
173833CR	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	\$4.95	\$4.46	\$3.56	<b>\$2.67</b>
32951CR	TIL311	37161CR	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.92	11.62
118906CR	LTP747R	37161CR	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.79	1.45	<b>1.05</b>
218843CR	CSM57041T-11	—	.700"	Red	5 x 7 CC/AR	12	1.8 @ 20	8 @ 20	660	—	1.95	1.55	1.17	.82
206560CR	LTP2157AG	—	2.0"	Green	5 x 7 CC/AR	14	3.7 @ 80	4.8 @ 80	565	—	4.49	3.55	3.27	3.09
183265CR	LMDS821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49

\* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

# LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point



## Cluster-Type T1 3/4 LED Lamps

- Cluster-type red/green T1 3/4 LEDs
- 660nm for red/570nm for green
- Lens: water clear • Common anode • 3 lead wires

150914CR: 50 Cluster (30 green/20 red)

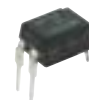
150922CR: 14 Cluster (8 green/6 red)

**SALE**

150914CR



See page 44 for  
our complete  
selection of  
Optoisolators.



Part No.	Product No.	Vf @ If	mcd @ mA	Lead Wire	Mounting Hole Dia.	Dimensions (Dia. x L)	Pricing		
							1	10	100
150914CR	LCR5250A-79	20.5V @ 40mA	12,000 @ 40	16"	M4	2.07 x 1.98	<del>\$19.95</del> <b>\$13.19</b>	<b>\$11.99</b>	<b>\$11.35</b>
150922CR	LCR2614B-79	10V @ 20mA	1950 @ 20	7"	M3	1.02 x 1.51	4.95	4.49	3.95

## Incandescent Panel Mount Lamps

- 215781CR/215790CR/215773CR: wire length - 3.9" (100mm)
- 215749CR/215757CR/215765CR: wire length - 4.9" (125mm)
- 215714CR/215722CR/215731CR: solder terminals - 0.196" (5mm)



215790CR  
Fig. 1



215757CR  
Fig. 2



215714CR  
Fig. 3

Part No.	Mfr. Cross Ref. No.	Fig.	Voltage	Color	Mounting Hole	Pricing		
						1	10	100
215773CR	R9-46B-W100-12V-R	1	12	Red	1/2" (13mm)	\$1.79	\$1.59	\$1.35
215781CR	R9-46B-W100-12V-Y	1	12	Yellow	1/2" (13mm)	1.79	1.59	1.35
215790CR	R9-46B-W100-12V-G	1	12	Green	1/2" (13mm)	1.79	1.59	1.35
215749CR	R9-55B-W130-12V-R	2	12	Red	9/32" (7mm)	1.79	1.59	1.35
215757CR	R9-55B-W130-12V-Y	2	12	Yellow	9/32" (7mm)	1.79	1.59	1.35
215765CR	R9-55B-W130-12V-G	2	12	Green	9/32" (7mm)	1.79	1.59	1.35
215714CR	R9-71B-05-12V-R	3	12	Red	5/8" (16mm)	1.79	1.59	1.35
215722CR	R9-71B-05-12V-Y	3	12	Yellow	5/8" (16mm)	1.79	1.59	1.35
215731CR	R9-71B-05-12V-G	3	12	Green	5/8" (16mm)	1.79	1.59	1.35

## Neon Panel Mount Lamps

- Input voltage: 120V
- Mounting hole diameter: 5/8" (16mm)
- Solder terminals: 0.196" (5mm)

215802CR: Red

215811CR: Yellow

215829CR: Green

215802CR



Part No.	Mfr. Cross Ref. No.	1	10	100
215802CR	R9-71N-05-120V-R ..	\$1.79	\$1.59	\$1.35
215811CR	R9-71N-05-120V-Y ....	1.79	1.59	1.35
215829CR	R9-71N-05-120V-G ....	1.79	1.59	1.35

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## Lamps and LED Accessories



### T1 & T1¾ Cliplite® Lens and Conxrite® Cable Assembly

**Cliplite® Lens:** • Material: (lens) polycarbonate: (ring) polypropylene (UL Listed)  
• Mounts through front panel in 0.171" hole diameter, panel thickness: 1/32" to 3/32"

**Conxrite® Cable Assembly:** • Terminals: phosphor bronze, tin-plated  
• Connector socket and ring/header connector: thermoplastic (UL Listed)  
• Wire: 22AWG, 7 strand copper, insulated



Part No.	Product No.	Size	Description	1	10	100	1000
143183CR	SMC170CTP	T1	Clear Cliplite® lens	\$ .22	\$ .20	\$ .15	\$ .13
143132CR	CMC321CTP	T1¾	Clear Cliplite® lens	.25	.22	.19	.16
143087CR	BE2108	T1	8.5" cable assembly	1.25	1.13	.93	.86
143036CR	CE2108	T1¾	8.5" cable assembly	1.29	1.25	1.19	1.15
143052CR	CE2118	T1¾	18" cable assembly	1.55	1.39	1.20	1.09

## LED Panel-Mount Indicators

- Easy panel installation
- Panel/status/instrument indicators

141111CR/141129CR/141137CR: Chrome housing

236427CR/236419CR: Black nylon housing

Quantity  
**SAVE**



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Prices

Part No.	Mfr. Cross Ref. No.	LED Size	Color	Dimensions (in.)			Mounting Hole	Vf @ If	Pricing			
				L	A	B			1	10	100	1000
236427CR	5102H5-12V	T1¾	Green	.53	6.0	6.0	.25"	12V @ 15mA	\$1.25	\$1.12	\$ .90	<b>\$ .68</b>
236419CR	5102H1-12V	T1¾	Red	.53	6.0	6.0	.25"	12V @ 15mA	1.19	1.07	.86	<b>.64</b>
141111CR	L922SRD	T1	Red	.56	.34	.25	.23"	12V @ 20mA	.79	.60	.52	.45
141129CR	L913RD	T1	Red	.56	.39	.32	.24"	12V @ 20mA	1.09	.81	.69	.61
141137CR	L917RD	T1¾	Red	.70	.55	.47	.31"	12V @ 20mA	.89	.79	.71	.55

## Cold Cathode Lamp Kits and Bulbs

Add brilliant colors to dull, old PC cases with these cold cathode lamps and bulbs. Each kit plugs directly into an open power supply connector, and includes dual outputs for an extra bulb. A PCI bracket switch provides convenient on/off control. Available in super bright green, red, and blue colors adding vibrant colors to your PC cases. Kits includes power supply and 1 cold cathode lamp.  
• Length: 14"

Part No.	Mfr. Cross Ref. No.	Description	1	10	25
263257CR	29420	Blue light kit .....	\$19.95	\$18.95	\$17.95
263265CR	29421	Red light kit .....	19.95	18.95	17.95
263273CR	29422	Green light kit .....	19.95	18.95	17.95
263290CR	29424	Blue bulb .....	10.95	10.45	9.95
263302CR	29425	Red bulb .....	10.95	10.45	9.95
263281CR	29426	Green bulb .....	10.95	10.45	9.95



## Electroluminescence Wires

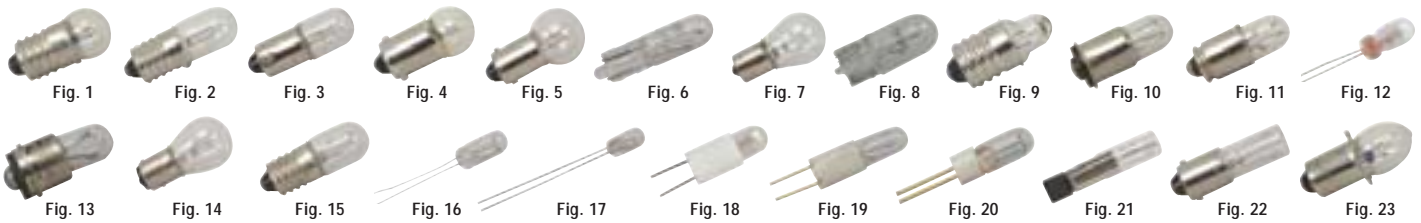


Imagine the possibilities of transforming ordinary objects with high tech visual effects. Wrap these fluorescent wires around any objects such as musical instruments, models, science projects, and presentation boards. Super charge your projects with brilliant colors.  
• Powered by 2 AA batteries  
• Length: 4.5'

Part No.	Product No.	Color	1	10	25
263484CR	NWRB15	Blue .....	\$21.95	\$20.95	\$19.95
263505CR	NWRG15	Green .....	21.95	20.95	19.95
263492CR	NWRR15	Red .....	21.95	20.95	19.95

# Incandescent and Neon Lamps

Color Code Legend  
New Sale Qty. Save



## Incandescent Lamps

**SALE**

\* Prepackaged: order in increments of 5, 10 or 100

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts (VDC)	MSCP	Pricing			
						1	5	10	100
209381CR	13	1	G3 1/2 miniature screw	3.7	.98	\$.79	\$.75	\$.69	\$.59
209390CR	14	1	G3 1/2 miniature screw	2.47	.50	.55	.52	.49	.45
209402CR	40	2	T3 1/4 miniature screw	6.3	.50	*	.29	.19	.15
209411CR	44	3	T3 1/4 miniature bayonet	6.3	.90	*	.22	.17	.13
209429CR	46	2	T3 1/4 miniature screw	6.3	.90	*	.37	.32	.27
209437CR	47	3	T3 1/4 miniature bayonet	6.3	.50	*	.22	.17	.13
209445CR	50	1	G3 1/2 miniature bayonet	7.5	1.0	.59	.54	.49	.44
210403CR	51	4	G3 1/2 miniature bayonet	7.5	1.0	*	.35	.29	.24
209453CR	53	4	G3 1/2 miniature bayonet	14.4	1.0	.49	.44	.39	.29
210411CR	55	5	G4 1/2 miniature bayonet	7.0	2.0	*	.20	.14	.09
209461CR	73	6	T1 3/4 wedge	14.0	.30	*	.24	.19	.16
209470CR	85	6	T1 3/4 wedge	28.0	.30	*	.24	.21	.17
209488CR	86	6	T1 3/4 wedge	6.3	.40	*	.24	.19	.15
209496CR	93	7	S-8 snl contact bayonet	12.8	15.0	.59	.54	.49	.44
209509CR	161	8	T3 1/4 wedge	14.0	1.0	*	.25	.19	.15
209517CR	168	8	T3 1/4 wedge	14.0	3.0	*	.24	.19	.14
209525CR	194	8	T3 1/4 wedge	14.0	2.0	*	.24	.19	.14
209533CR	222	9	GTL-3 miniature screw	2.25	—	*	.29	.24	.22
209541CR	259	8	T3 1/4 wedge	6.3	.65	*	.24	.19	.16
209550CR	313	3	T3 1/4 miniature bayonet	28.0	3.5	*	.25	.19	.16
209568CR	327	10	T1 3/4 midget flange	28.0	.34	*	.29	.24	.22
209576CR	328	10	T1 3/4 midget flange	6.0	.60	.49	.44	.39	.34
209584CR	330	10	T1 3/4 midget flange	14.0	.50	*	.39	.34	.29
209592CR	334	11	T1 3/4 midget groove	28.0	.34	*	.39	.35	.29
209608CR	335	15	T1 3/4 midget screw	28.0	.34	.49	.44	.39	.32
209613CR	344	10	T1 3/4 midget flange	10.0	.002	.99	.89	.79	.69
209621CR	345	10	T1 3/4 midget flange	6.0	.03	.59	.49	.45	.35
209630CR	370	10	T1 3/4 midget flange	18.0	.15	.89	.79	.69	.59
209648CR	376	10	T1 3/4 midget flange	28.0	.34	.59	.49	.39	.29
209656CR	379	11	T1 3/4 midget groove	6.3	.40	.69	.59	.49	.39
209664CR	381	10	T1 3/4 midget flange	6.3	.40	.49	.45	.39	.29
209672CR	382	10	T1 3/4 midget flange	14.0	.30	.49	.45	.39	.29
209681CR	385	10	T1 3/4 midget flange	28.0	.15	.49	.45	.38	.29
209699CR	386	11	T1 3/4 midget groove	14.0	.30	*	.39	.33	.27
209701CR	387	10	T1 3/4 midget flange	28.0	.30	*	.37	.25	.23
209710CR	388	11	T1 3/4 midget groove	28.0	.30	*	.35	.29	.25
209728CR	394	10	T1 3/4 midget flange	12.0	.12	.49	.45	.39	.32
209736CR	656	8	T3 1/4 wedge	28.0	.62	*	.24	.19	.15
209752CR	657	8	T3 1/4 wedge	28.0	.62	*	.25	.20	.15
202100CR	683	12	T1 wire terminal	5.0	.05	.49	.39	.35	.28
209761CR	685	13	T1 sub midget flange	5.0	.05	.99	.89	.79	.69
209779CR	715	12	T1 wire terminal	5.0	.15	.89	.79	.69	.59
209787CR	755	3	T3 1/4 miniature bayonet	6.3	.33	.49	.44	.37	.30
209795CR	756	3	T3 1/4 miniature bayonet	14.0	.31	.59	.54	.49	.39
209808CR	757	3	T3 1/4 miniature bayonet	28.0	.62	*	.35	.32	.27
210438CR	1156	7	S-8 snl contact bayonet	12.8	32	.49	.45	.39	.35
210446CR	1157	14	S-8 double contact index	12.8/14	32/3	*	.39	.35	.29
209816CR	1450	4	G3 1/2 miniature bayonet	24.0	.23	.99	.89	.79	.69
209824CR	1813	3	T3 1/4 miniature bayonet	14.4	.86	*	.29	.24	.22
209832CR	1815	3	T3 1/4 miniature bayonet	14.0	1.4	.49	.39	.29	.25
209841CR	1816	3	T3 1/4 miniature bayonet	13.0	3.0	*	.29	.24	.19
209859CR	1818	3	T3 1/4 miniature bayonet	24.0	3.3	.99	.89	.79	.69
209867CR	1819	3	T3 1/4 miniature bayonet	28.0	.34	*	.25	.19	.15
209875CR	1820	3	T3 1/4 miniature bayonet	28.0	1.6	.49	.39	.34	.24
209883CR	1821	15	T3 1/4 screw	28.0	3.4	.99	.89	.79	.69
209891CR	1822	3	T3 1/4 miniature bayonet	36.0	2.1	.49	.39	.29	.25
209904CR	1829	3	T3 1/4 miniature bayonet	28.0	1.0	*	.29	.24	.19

## Incandescent Lamps (Continued)

\* Prepackaged: order in increments of 5, 10 or 100

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Volts (VDC)	MSCP	Pricing			
						1	5	10	100
209912CR	1835	3	T3 1/4 miniature bayonet	55.0	1.1	\$.49	\$.39	\$.29	\$.24
209921CR	1847	3	T3 1/4 miniature bayonet	6.3	.38	.49	.39	.29	.24
209939CR	1850	3	T3 1/4 miniature bayonet	5.0	.25	.49	.39	.29	.24
209947CR	1864	3	T3 1/4 miniature bayonet	28.0	3.0	.49	.39	.29	.24
209955CR	1866	3	T3 1/4 miniature bayonet	6.3	.65	*	.39	.29	.19
209963CR	1891	3	T3 1/4 miniature bayonet	14.0	2.0	.49	.39	.29	.19
209971CR	1893	3	T3 1/4 miniature bayonet	14.0	2.0	.49	.39	.29	.24
141073CR	2182	16	T1 3/4 wire terminal	14.0	.30	.49	.44	.39	.34
141065CR	2200	16	T1 3/4 wire terminal	5.0	.05	.59	.54	.49	.44
141057CR	6833	17	T 3/4 wire terminal	5.0	.05	1.29	1.15	.99	.89
209998CR	7219	12	T1 wire terminal	12.0	.15	*	.29	.25	.19
210008CR	7328	18	T1 3/4 bi-pin	6.0	.60	.89	.79	.69	.59
210016CR	7335	10	T1 3/4 midget flange	5.0	.15	.69	.59	.49	.39
210024CR	7341	10	T1 3/4 midget flange	28.0	.65	.79	.69	.59	.49
141006CR	7361	18	T1 3/4 bi-pin	5.0	.05	.99	.89	.79	.69
210032CR	7382	18	T1 3/4 bi-pin	14.0	.30	.49	.39	.35	.29
210041CR	7387	18	T1 3/4 bi-pin	28.0	.30	.49	.45	.39	.29
210059CR	7632	19	T1 1/4 bi-pin	28.0	.32	1.29	.99	.89	.79
210067CR	7683	20	T1 bi-pin	5.0	.05	1.19	.99	.89	.79
210075CR	7715	20	T1 bi-pin	5.0	.15	1.19	.99	.89	.79
210083CR	7839	20	T1 bi-pin	28.0	.15	1.19	.99	.89	.79
210227CR	6PSB	21	T2 tel. slide base type 5	6.0	550	.79	.69	.59	.49
210112CR	12ESB	21	T2 tel. slide base type 5	12.0	650	.69	.59	.55	.49
210121CR	12PSB	21	T2 tel. slide base type 5	12.0	2000	.69	.65	.59	.49
210139CR	24ESB	21	T2 tel. slide base type 5	24.0	850	.69	.65	.59	.49
210147CR	24MB	22	T2 miniature bayonet	24.0	3000	.99	.89	.79	.69
210155CR	24PSB	21	T2 tel. slide base type 5	24.0	3000	.59	.55	.49	.45
210163CR	28ESB	21	T2 tel. slide base type 5	28.0	1500	.79	.69	.59	.49
210171CR	28MB	22	T2 miniature bayonet	28.0	1600	.89	.79	.69	.59
210180CR	28PSB	21	T2 tel. slide base type 5	28.0	1600	.69	.59	.49	.45
210198CR	48PSB	21	T2 tel. slide base type 5	48.0	1800	.89	.79	.69	.59
210201CR	60MB	22	T2 miniature bayonet	60.0	2200	.89	.79	.69	.59
210219CR	60PSB	21	T2 tel. slide base type 5	60.0	2200	.69	.59	.55	.49
210091CR	120MB	22	T2 miniature bayonet	120	1200	.69	.65	.59	.55
210104CR	120PSB	21	T2 tel. slide base type 5	120	1200	.69	.65	.59	.55
210340CR	PR2	23	B3 1/2 snl cont. mini flange	2.38	.80	*	.24	.20	.15
210358CR	PR3	23	B3 1/2 snl cont. mini flange	3.57	1.5	*	.24	.20	.15
210366CR	PR4	23	B3 1/2 snl cont. mini flange	2.33	.40	*	.24	.20	.15
210374CR	PR6	23	B3 1/2 snl cont. mini flange	2.47	.45	*	.24	.20	.15



## Neon Lamps

\* Prepackaged: order in increments of 5, 10 or 100

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Voltage (VAC)	Pricing			
					1	5	10	100
27351CR	A1A (NE-2)	1	Wire terminal	65-120	*	\$.35	\$.31	\$.26
210243CR	A1B	1	Wire terminal	65-120	*	.28	.25	.24
210251CR	A1C	1	Wire terminal	65-120	*	.39	.29	.25
210260CR	A9A (NE-2E)	1	Wire terminal	65-120	*	.29	.25	.19
210278CR	B1A (NE-51)	2	T3 1/4 miniature bayonet	65-120	.79	.75	.69	.59
210286CR	B2A (NE-51H)	2	T3 1/4 miniature bayonet	65-120	.69	.59	.49	.39
210294CR	B7A (NE-45)	3	T4 1/2 candelabra screw	65-120	3.99	3.49	2.99	2.49
210307CR	B9A (NE-48)	4	T4 1/2 D.C. bayonet	65-120	2.99	2.49	1.99	1.79
210315CR	C2A (NE-2H)	1	Wire terminal	65-120	*	.39	.35	.26





193009CR Tape and Reel



193009CR

**New Lower Prices**  
**Quantity SAVE**

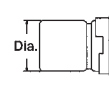
## Aluminum Electrolytic Capacitors

Operating temperature range	-40°C to +85°C
Leakage Current (20°C) after 2 minutes	≤ .01CV or 3μA

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref No.†	Value (μF)	Voltage	Dia. (mm)	Pricing			
					1	10	100	500
193228CR	SE1/50	1	50	4.0	*	\$.15	\$.12	\$.09
193236CR	SE2.2/50	2.2	50	4.0	*	.15	.12	.09
193244CR	SE3.3/50	3.3	50	4.0	*	.15	.128	.096
193076CR	SE427/25	4.7	25	4.0	*	.16	.13	.096
193252CR	SE4.7/50	4.7	50	5.0	*	.17	.14	.105
192997CR	SE10/16	10	16	4.0	*	.16	.13	.096
193084CR	SE10/25	10	25	5.0	*	.16	.13	.096
193164CR	SE10/35	10	35	5.0	*	.18	.153	.115
193261CR	SE10/50	10	50	6.3	*	.29	.22	.18
192891CR	SE22/6.3	22	6.3	4.0	*	.13	.10	.082
193009CR	SE22/16	22	16	5.0	*	.14	.119	.089
193092CR	SE22/25	22	25	6.3	*	.18	.153	.115
193172CR	SE22/35	22	35	6.3	*	.17	.14	.10
193279CR	SE22/50	22	50	6.3	*	.26	.221	.165
193017CR	SE33/16	33	16	5.0	*	.17	.14	.10
193105CR	SE33/25	33	25	6.3	*	.22	.19	.14
193181CR	SE33/35	33	35	8.0	.29	.25	.23	.20
193287CR	SE33/50	33	50	8.0	.35	.32	.28	.25
193025CR	SE47/16	47	16	6.3	*	.17	.14	.115
193113CR	SE47/25	47	25	6.3	.39	.24	.21	.18
193199CR	SE47/35	47	35	6.3	*	.24	.16	.13

† Cross Reference: Panasonic: VS Series



Side View



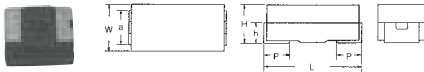
Bottom View

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref No.†	Value (μF)	Voltage	Dia. (mm)	Pricing			
					1	10	100	500
193295CR	SE47/50	47	50	10.0	\$.35	\$.29	\$.25	\$.23
192903CR	SE100/6.3	100	6.3	6.3	*	.18	.15	.11
192954CR	SE100/10	100	10	6.3	*	.19	.16	.12
193033CR	SE100/16	100	16	8.0	*	.26	.23	.21
193121CR	SE100/25	100	25	8.0	.39	.35	.28	.21
193201CR	SE100/35	100	35	10.0	.39	.35	.32	.28
193308CR	SE100/50	100	50	10.0	.48	.43	.39	.33
192911CR	SE220/6.3	220	6.3	6.3	.29	.27	.19	.14
192962CR	SE220/10	220	10	8.0	.31	.29	.27	.23
193041CR	SE220/16	220	16	8.0	.52	.47	.42	.35
193130CR	SE220/25	220	25	10.0	.63	.57	.51	.45
193210CR	SE220/35	220	35	8.0	.55	.50	.40	.30
193316CR	SE220/50	220	50	10.0	.61	.55	.44	.33
193050CR	SE330/16	330	16	10.0	.49	.36	.31	.26
193148CR	SE330/25	330	25	8.0	.49	.44	.35	.26
192920CR	SE470/6.3	470	6.3	8.0	.44	.39	.31	.27
192971CR	SE470/10	470	10	10.0	.45	.40	.32	.28
193068CR	SE470/16	470	16	10.0	.52	.45	.37	.19
193156CR	SE470/25	470	25	10.0	.61	.54	.48	.43
192938CR	SE1000/6.3	1000	6.3	10.0	.51	.46	.36	.34
192989CR	SE1000/10	1000	10	10.0	.52	.47	.37	.35
192946CR	SE1500/6.3	1500	6.3	10.0	\$.69	\$.59	\$.49	\$.37

Passives

## Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)



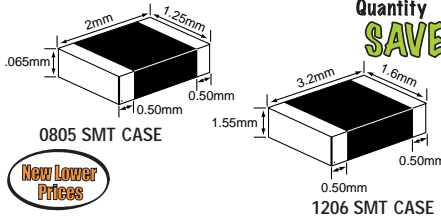
Case Size (Dimensions in mm)

EIA CASE CODE	L ±0.2	W ±0.2	H ±0.2	P ±0.3	a ±0.2	h(min)
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

10V SMT Tantalum			Pricing per each			
Part No.	Capacitance	Case Size	10 pc. Incremnt	Pricing		
				100	500	1000
87020CR	10µF	B	\$.18	\$.15	\$.12	\$.09
87118CR	100µF	D	.83	.79	.75	.72

16V SMT Tantalum			Pricing per each			
Part No.	Capacitance	Case Size	10 pc. Incremnt	Pricing		
				100	500	1000
86932CR	1μF	A	\$.19	\$.15	\$.11	\$.105
87038CR	10μF	C	.29	.26	.23	.21
87100CR	47μF	D	.91	.86	.81	.72

## Multilayer Ceramic Chip Capacitors



**New Lower Prices**

**Quantity SAVE**

### X7R SERIES (±10%)

0805 SMT Case			Pricing per each			
Part No.	Capacitance	Volt.	100 pc. Incremnt	Pricing		
				500	1000	3000
87311CR	.01μF	50	\$.07	\$.04	\$.03	\$.016
87370CR	.1μF	25	.09	.06	.053	.048

1206 SMT Case			Pricing per each			
Part No.	Capacitance	Volt.	100 pc. Incremnt	Pricing		
				500	1000	3000
87329CR	.01μF	50	\$0.07	\$0.04	\$0.03	\$0.022
87388CR	.1μF	50	.13	.05	.045	.042
87396CR	.22μF	25	.25	.22	.165	.148

### Z5U SERIES (±20%)

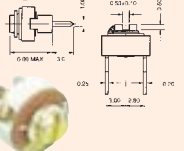
0805 SMT Case			Pricing per each			
Part No.	Capacitance	Voltage	100 pc. Incremnt	Pricing		
				500	1000	5000
87177CR	.1μF	50	\$ .037	\$ .029	\$ .022	\$ .019

1206 SMT Case			Pricing per each			
Part No.	Capacitance	Voltage	100 pc. Incremnt	Pricing		
				500	1000	5000
87185CR	.1μF	50	\$.08	\$.069	\$.049	\$.039
87206CR	.22μF	50	.09	.059	.044	.039
87222CR	.47μF	50	.25	.22	.19	.17

**JAMECO ValuePro**

## 5mm Ceramic Trimmer Capacitor

- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35-200 g-cm
- Operating temperature range: -30°C~+85°C
- Insulation resistance: >10MΩ min. @ 250VDC

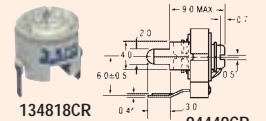


Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing			
				1	10	100	1000
136979CR	9.0-50.0	> 200	Green	\$.89	\$.79	\$.69	\$.59

**JAMECO ValuePro**

## 8mm .315" Ceramic Trimmer Capacitors Thru Hole

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40~200 g-cm
- Operating temperature range: -55°C~+85°C
- Insulation resistance: 10MΩ min. @ 250VDC



Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing			
				1	10	100	1000
134819CR	3.5~13.0	> 300	Ivory	\$.69	\$.53	\$.53	\$.446
32838CR	4.0~34.0	> 300	Yellow	.90	.77	.62	.59
32854CR	6.0~70.0	> 200	Nil	.92	.78	.72	.68
94449CR	8.5~100	> 200	Purple	1.05	.93	.81	.77
94465CR	8.5~120	> 200	Nil	.99	.79	.65	.59

**Special Limited Offers from Other Manufacturers**

Part No.	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	1	10	100	1000
134818CR	3.5~13.0	> 300	Ivory	\$.62	\$.56	\$.45	\$.33

Even lower OEM pricing for larger orders!

## Corporate Customers

Call 1-800-831-4242 for details today.

See page 120 for  
Plastic Fliptop Case  
for SMDs.



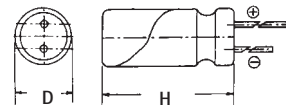
See page 120  
for Additional  
Resistor Kits.



## Aluminum Radial-Lead Electrolytic Capacitors (±20%)

General purpose low voltage 85°C (A); HT Type 105°C (B)

Operating temperature range	-40°C to +85°C (A); -40°C to +105°C (B)	
Leakage Current (20°C)	After 1 min.	0.03CV or 4µA, whichever is greater
	After 2 min.	0.01CV or 3µA, whichever is greater



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SG; Panasonic: KA/KS/SU

\* Prepackaged: order in increments of 10, 100 or 500

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Op. Temp	Value (µF)	Voltage	Size (mm) D x H	Pricing			
						1	10	100	500
158481CR	R0.47B100	B	0.47	100V	5 x 11	*	\$0.05	\$0.04	\$0.03
94160CR	5R1/50	A	1	50V	4 x 5	*	.12	.08	.05
29831CR	R1/50	A	1	50V	5 x 11	*	.057	.048	.038
158490CR	R1B100	B	1	100V	5 x 11	*	.06	.05	.04
93729CR	R2.2/50	A	2.2	50V	5 x 11	*	.038	.033	.026
199021CR	R2.2J/100	A	2.2	100V	5 x 11	*	.035	.03	.025
135183CR	R3.3/50	A	3.3	50V	5 x 11	*	.05	.04	.025
31000CR	R4.7/50	A	4.7	50V	5 x 11	*	.038	.033	.026
198838CR	R10J/16	A	10	16V	5 x 11	*	.045	.03	.025
94211CR	5R10/25	A	10	25V	4 x 5	*	.13	.08	.05
94220CR	5R10/35	A	10	35V	5 x 5	*	.09	.07	.065
94369CR	7R10/35	A	10	35V	5 x 7	*	.11	.06	.04
29891CR	R10/50	A	10	50V	5 x 11	*	.06	.05	.04
199048CR	R10J/100	A	10	100V	6 x 11	*	.05	.04	.029
158529CR	R10B100	B	10	100V	6 x 11	*	.08	.07	.055
158326CR	R22B35	B	22	35V	5 x 11	*	.07	.05	.03
198846CR	R22J/16	A	22	16V	5 x 11	*	.04	.035	.026
189918CR	R22J/25	A	22	25V	5 x 11	*	.039	.033	.025
207870CR	R22B/25	B	22	25V	5 x 11	*	.039	.031	.023
198942CR	R22J/35	A	22	35V	5 x 11	*	.029	.026	.023
93737CR	R22/50	A	22	50V	5 x 11	*	.06	.05	.035
199056CR	R22J/100	A	22	100V	6 x 11	*	.15	.09	.06
198854CR	R33J/16	A	33	16V	5 x 11	*	.034	.029	.022
198926CR	R33J/25	A	33	25V	5 x 11	*	.045	.035	.025
93745CR	R33/50	A	33	50V	5 x 11	*	.055	.05	.045
199064CR	R33J/100	A	33	100V	8 x 11	*	.089	.08	.072
135301CR	R47/10	A	47	10V	5 x 12	*	.04	.03	.025
198862CR	R47J/16	A	47	16V	5 x 11	*	.04	.032	.023
93753CR	R47/25	A	47	25V	5 x 11	*	.048	.033	.026
198951CR	R47J/35	A	47	35V	5 x 11	*	.05	.04	.03
199072CR	R47J/100	A	47	100V	10 x 12	*	.15	.13	.10
158246CR	R47B25	B	47	25V	5 x 11	*	.06	.04	.035
31114CR	R47/50	A	47	50V	6 x 11	*	.06	.05	.045
207811CR	R100/10	A	100	10V	5 x 11	*	.08	.06	.05
94289CR	5R100/16	A	100	16V	6 x 5	*	.15	.12	.09
94431CR	7R100/16	A	100	16V	6 x 7	*	.09	.075	.055
93761CR	R100/25	A	100	25V	6 x 11	*	.07	.05	.035
198969CR	R100J/35	A	100	35V	6 x 11	*	.07	.06	.05
29962CR	R100/50	A	100	50V	8 x 11	*	.07	.06	.05
158393CR	R100B50	B	100	50V	8 x 11	*	.09	.07	.055
207845CR	R180/16	B	180	16V	6 x 15	*	.07	.06	.04

Part No.	Mfr. Cross Ref. No.†	Op. Temp	Value (µF)	Voltage	Size (mm) D x H	Pricing			
						1	10	100	500
135124CR	7R220/10	A	220	10V	6 x 11	\$0.26	\$0.20	\$0.15	\$0.105
198871CR	R220J/16	A	220	16V	6 x 11	*	.11	.07	.06
30496CR	R220/25	A	220	25V	8 x 11	*	.08	.06	.05
158262CR	R220B25	B	220	25V	8 x 11	*	.12	.09	.07
93770CR	R220/35	A	220	35V	10 x 12	*	.09	.08	.07
93778CR	R220/50	A	220	50V	10 x 12	*	.15	.12	.09
158406CR	R220B50	B	220	50V	10 x 12	*	.20	.13	.11
199081CR	R220J/100	A	220	100V	12 x 25	.75	.55	.49	.39
198889CR	R330J/16	A	330	16V	8 x 11	*	.14	.07	.06
93796CR	R330/25	A	330	25V	10 x 12	*	.13	.09	.08
198977CR	R330J/35	A	330	35V	10 x 12	.45	.29	.22	.16
199099CR	R330J/100	A	330	100V	12 x 25	1.15	1.03	.81	.62
93809CR	R470/16	A	470	16V	8 x 11	*	.11	.095	.076
158203CR	R470B16	B	470	16V	8 x 11	*	.12	.10	.09
31181CR	R470/25	A	470	25V	10 x 12	*	.12	.10	.09
158289CR	R470B25	B	470	25V	10 x 12	*	.15	.12	.10
93817CR	R470/35	A	470	35V	10 x 16	*	.17	.15	.13
93825CR	R470/50	A	470	50V	12 x 20	.29	.27	.19	.13
158465CR	R470B63	B	470	63V	12 x 20	.30	.27	.24	.21
199101CR	R470J/100	A	470	100V	16 x 25	1.15	.78	.69	.58
30015CR	R1000/16	A	1000	16V	10 x 16	*	.16	.14	.12
93833CR	R1000/25	A	1000	25V	10 x 20	*	.25	.23	.18
158297CR	R1000B25	B	1000	25V	10 x 20	.35	.29	.25	.19
286045CR	Q399L	A	1000	35V	12 x 20	\$4.09	.50	.46	.41
158377CR	R1000B35	B	1000	35V	12 x 20	.49	.45	.40	.35
93841CR	R1000/50	A	1000	50V	12 x 25	.52	.46	.41	.34
302578CR	RS1000/50	A	1000	50V	18 x 21	.45	.40	.36	.31
199110CR	R1000J/100	A	1000	100V	18 x 40	2.99	2.69	2.15	1.61
133145CR	R2200/16	A	2200	16V	12 x 20	.32	.28	.24	.22
30533CR	R2200/25	A	2200	25V	12 x 25	.55	.49	.40	.30
198985CR	R2200J/35	A	2200	35V	16 x 25	1.39	1.25	.99	.74
158431CR	R2200B50	B	2200	50V	16 x 35	.99	.89	.70	.61
198977CR	R3300J/16	A	3300	16V	12 x 25	.49	.39	.33	.29
30891CR	R3300/25	A	3300	25V	16 x 25	.71	.65	.49	.43
198993CR	R3300J/35	A	3300	35V	16 x 35	.99	.89	.71	.53
199013CR	R3300J/50	A	3300	50V	18 x 35	2.15	1.95	1.71	1.46
198900CR	R4700J/16	A	4700	16V	16 x 25	.79	.69	.51	.45
93850CR	R4700/25	A	4700	25V	16 x 31	.99	.85	.70	.55
199005CR	R4700J/35	A	4700	35V	18 x 35	1.35	1.25	1.15	1.05
163301CR	R4700/50	A	4700	50V	22 x 42	1.99	1.79	1.50	1.31
31510CR	R6800/16	A	6800	16V	16 x 35	.99	.78	.68	.59
198934CR	R6800J/25	A	6800	25V	18 x 35	2.55	1.96	1.49	1.15

## Snap-Mount Large-Can Aluminum Electrolytic Capacitors (±20%)

- Designed as input filter for switched mode power supply; standard 10mm (.400") snap-in spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (µA) or 3mA whichever is smaller
- Can-Top safety vent

† CROSS REFERENCES: Aero M: LP/LPR; Elna: LP3/LP4; Illinois Capacitor: LBA/LPR; Mallory: LPX; Marcon: CEAWF; Nichicon: LLK/LLQ; Panasonic: TS-UP/TS-U; Phillips (MEPCO): 3487/3489; Rubycon: RSP; Sprague: 80D/82D; United Chemicon: SMG(VN)/SMH(VN)

Snap-Ins!



115422CR

Part No.	Mfr. Cross Ref. No.†	Capacitance	Voltage	Size (mm)* D x H	Pricing		
					1	10	100
203211CR	SN220/400/2	220µF	400V	22 x 51	\$4.45	\$3.75	\$2.65
203220CR	SN220/400/3	220µF	400V	30 x 30	\$4.99	4.29	2.89
203238CR	SN270/350	270µF	350V	25 x 40	\$4.99	4.69	2.40
203246CR	SN330/400	330µF	400V	30 x 46	4.99	4.24	(3.18)
115377CR	SN470/200	470µF	200V	30 x 41	2.49	2.25	1.99
203254CR	SN470/400/4	470µF	400V	35 x 41	6.99	5.69	(4.45)

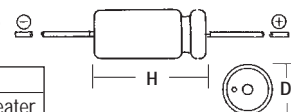
\* Capacitor dimensions and styles may vary

Part No.	Mfr. Cross Ref. No.†	Capacitance	Voltage	Size (mm)* D x H	Pricing		
					1	10	100
203262CR	SN470/400/5	470µF	450V	35 x 51	\$8.25	\$7.60	(\$5.69)
155889CR	SN560/200	560µF	200V	23 x 41	3.20	2.69	1.90
203271CR	SN680/200/2	680µF	200V	35 x 25	\$2.75	2.49	2.11
203289CR	SN680/200/3	680µF	200V	30 x 31	\$2.35	2.15	1.97
115422CR	SN4700/50	4,700µF	50V	30 x 41	3.19	2.69	1.99
115431CR	SN6800/50	6,800µF	50V	30 x 51	3.15	2.68	(2.01)
157737CR	SN10000/50	10,000µF	50V	35 x 40	4.95	4.10	3.99

## Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C maximum

Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2μA, whichever is greater



† CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

\* Prepackaged: order in increments of 10, 100 or 500

Part No.	Mfr. Cross Ref. No.†	Value (μF)	Voltage	Size (mm)* DxH	Pricing			
					1	10	100	500
10866CR	A1/50	1	50V	5 x 13	*	\$.15	\$.115	\$.09
199128CR	A2.2J/16	2.2	16V	6 x 13	*	.17	.15	.13
93569CR	A2.2/50	2.2	50V	6 x 13	*	.11	.10	.09
199136CR	A3.3J/16	3.3	16V	6 x 12	*	.074	.066	.062
199419CR	A3.3J/50	3.3	50V	6 x 12	*	.19	.12	.09
11076CR	A4.7/50	4.7	50V	6 x 13	*	.18	.13	.11
199427CR	A6.8J/50	6.8	50V	6 x 12	*	.19	.12	.09
199144CR	A10J/16	10	16V	6 x 12	*	.20	.14	.10
199259CR	A10J/25	10	25V	5 x 12	*	.15	.10	.085
93577CR	A10/35	10	35V	6 x 13	*	.12	.096	.072
10882CR	A10/50	10	50V	6 x 12	*	.15	.12	.08
199152CR	A22J/16	22	16V	6 x 12	*	.17	.15	.11
199267CR	A22J/25	22	25V	6 x 12	*	.20	.14	.10
10997CR	A22/50	22	50V	6 x 12	*	.19	.14	.10
199161CR	A33J/16	33	16V	6 x 13	*	.13	.10	.078
199275CR	A33J/25	33	25V	6.3 x 12	*	.18	.12	.09
199347CR	A33J/35	33	35V	6.3 x 16	*	.19	.13	.09
199435CR	A33J/50	33	50V	6.3 x 16	*	.18	.12	.09
199179CR	A47J/16	47	16V	6.3 x 12	*	.14	.10	.085
135319CR	A47/25	47	25V	8 x 16	*	.15	.14	.09
199355CR	A47J/35	47	35V	6.3 x 16	*	.20	.14	.10
11105CR	A47/50	47	50V	8 x 16	*	.19	.14	.10
199443CR	A68J/50	68	50V	8 x 15	.25	.21	.17	.12
199187CR	A100J/16	100	16V	6.3 x 16	.21	.18	.14	.115
199283CR	A100J/25	100	25V	8 x 16	.25	.20	.18	.15
93551CR	A100/35	100	35V	8 x 16	*	.21	.17	.13
10911CR	A100/50	100	50V	8 x 20	*	.22	.18	.14
199195CR	A220J/16	220	16V	8 x 16	*	.17	.13	.11
199291CR	A220J/25	220	25V	8 x 16	.25	.21	.18	.12
199363CR	A220J/35	220	35V	10 x 17	.31	.25	.23	.18

\* Capacitor dimensions and styles may vary

Part No.	Mfr. Cross Ref. No.†	Value (μF)	Voltage	Size (mm)* DxH	Pricing			
					1	10	100	500
11017CR	A220/50	220	50V	10 x 20	\$.35	\$.29	\$.25	\$.19
199208CR	A330J/16	330	16V	8 x 16	.25	.19	.18	.14
199304CR	A330J/25	330	25V	10 x 17	.29	.23	.21	.15
199371CR	A330J/35	330	35V	10 x 17	.35	.32	.25	.19
199451CR	A330J/50	330	50V	13 x 22	.44	.38	.35	.31
199216CR	A470J/16	470	16V	8 x 16	.25	.23	.18	.16
199312CR	A470J/25	470	25V	10 x 17	.35	.30	.26	.21
199380CR	A470J/35	470	35V	10 x 21	.46	.37	.34	.27
11121CR	A470/50	470	50V	13 x 31	.59	.49	.42	.34
199460CR	A680J/50	680	50V	16 x 25	.79	.68	.53	.44
93631CR	A1000/16	1000	16V	13 x 27	.46	.41	.38	.36
10954CR	A1000/25	1000	25V	13 x 31	.59	.49	.44	.34
93649CR	A1000/35	1000	35V	13 x 26	.85	.75	.59	.49
147256CR	A1000/50	1000	50V	16 x 31	.79	.69	.59	.49
213356CR	A1000/50-1	1000	50V	22 x 41	.69	.59	.55	.49
11033CR	A2200/16	2200	16V	16 x 40	.79	.71	.65	.59
199321CR	A2200J/25	2200	25V	16 x 28	.99	.83	.72	.55
93657CR	A2200/35	2200	35V	16 x 30	1.25	1.10	.99	.85
199478CR	A2200J/50	2200	50V	18 x 42	2.29	1.93	1.79	1.65
93665CR	A3300/25	3300	25V	16 x 32	.99	.89	.79	.69
199398CR	A3300J/35	3300	35V	18 x 37	3.15	2.84	2.27	1.70
199486CR	A3300J/50	3300	50V	22 x 43	3.95	3.15	2.35	2.05
199232CR	A4700J/16	4700	16V	16 x 30	1.55	1.37	1.09	.95
93673CR	A4700/25	4700	25V	22 x 39	1.69	1.49	1.29	.99
199401CR	A4700J/35	4700	35V	18 x 40	2.50	2.13	1.75	1.55
158810CR	A4700A50	4700	50V	25 x 43	2.79	2.29	2.09	1.79
199241CR	A6800J/16	6800	16V	16 x 33	1.99	1.35	1.12	.88
199339CR	A6800J/25	6800	25V	18 x 40	1.59	1.45	1.35	1.19
93681CR	A10000/16	10000	16V	22 x 51	2.25	2.05	1.65	1.19

Passives

## Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt,  
Z5U Temperature Coefficient

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Capacitance	Voltage	Dia. * (mm)	Pricing			
					10	100	1000	5000
135141CR	DC2.2	2.2pF	50V	5	\$.05	\$.035	\$.019	\$.015
15333CR	DC12	10pF	50V	5	.07	.05	.02	.015
15405CR	DC22	22pF	50V	6	.07	.05	.025	.02
15510CR	DC47	47pF	50V	5	.05	.035	.02	.015
15341CR	DC100	100pF	50V	5	.05	.035	.025	.02
15413CR	DC220	220pF	50V	5	.05	.035	.025	.015
15448CR	DC330	330pF	50V	4.6	.05	.035	.025	.022
15528CR	DC470	470pF	50V	5	.08	.065	.025	.022
207853CR	DC820/1000	820pF	1000V	14	.07	.059	.048	.036
15190CR	DC.001	.001μF	50V	6	.06	.05	.025	.022
97341CR	DC.0022/1K20	.0022μF	1000V	11	.22	.18	.16	.11
15211CR	DC.0047	.0047μF	50V	6	.05	.035	.03	.02
15229CR	DC.01	.01μF	50V	6	.06	.04	.03	.02
97375CR	DC.01/1K20	.01μF	1000V	12	.18	.12	.084	.066
15245CR	DC.022	.022μF	50V	8	.07	.05	.04	.03
15253CR	DC.047	.047μF	50V	8	.084	.069	.057	.04
151116CR	DC.1/25	.1μF	25V	6	.14	.13	.08	.07
15270CR	DC.1	.1μF	50V	8	.15	.13	.115	.095

\* Capacitor dimensions and styles may vary

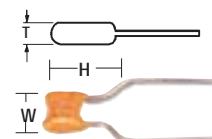
## Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:

- Data processing
- Communications engineering

Operating temperature range:

-10°C to +85°C



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Capacitance	Volt.	Size (mm)* W x T x H	Pricing				
					1	10	100	1000	5000
81541CR	MD10	10pF	50V	3.5 x 2.0 x 3.0	*	\$.10	\$.065	\$.045	\$.03
81533CR	MD22	22pF	50V	4.0 x 2.0 x 4.0	*	.095	.073	.045	.04
81525CR	MD100	100pF	50V	3.5 x 2.0 x 3.0	*	.09	.07	.045	.035
81517CR	MD.001	.001μF	50V	4.5 x 2.0 x 3.0	*	.09	.07	.05	.035
138181CR	MD.0022	.0022μF	50V	4.0 x 2.0 x 5.5	*	.07	.06	.05	.04
138202CR	MD.0047	.0047μF	50V	5.0 x 2.0 x 5.5	*	.07	.056	.049	.044
25507CR	MD.01	.01μF	50V	3.5 x 2.0 x 3.0	*	.09	.06	.04	.035
57621CR	MD.047	.047μF	50V	2.5 x 2.5 x 3.0	*	.08	.07	.05	.03
25523CR	MD.1	.1μF	50V	6.0 x 2.0 x 4.0	*	.07	.06	.04	.035
25540CR	MD.22	.22μF	50V	6.0 x 2.0 x 4.5	*	.17	.12	.08	.06
138237CR	MD.33	.33μF	50V	6.0 x 2.0 x 8.0	*	.16	.14	.11	.07
25558CR	MD.47	.47μF	50V	4.5 x 2.5 x 4.5	*	.25	.19	.13	.12
81509CR	MD1	1μF	50V	6.0 x 3.0 x 7.0	.48	.43	.32	.23	.21

\* Capacitor dimensions and style may vary

See page 55 for Monolithic Ceramic  
Capacitor Cabinet Kit.



# Capacitors (Continued)

Color Code Legend  
New Sale Qty. Save

## Mylar Capacitors (±10%) Metallized Polyester Film Capacitors

- High performance at low cost • Non-inductive construction

Operating temperature range	-40°C to +85°C
Dissipation factor	≤.01 (at 1kHz)
Dielectric strength	150% of rated voltage for 5 sec.

### † Cross References:

**Panasonic:** ECQ-E Series; **Sprague:** DF/450P/451P/453P;  
**Westlake:** 160/168/ 185/167/184/186; **Rubycon:** MC/MN; **Mepco:** 713A1/719A1/C280;  
**TRW:** X601PE/ X601CPE; **Packtron:** MF/RB; **Secor:** MMKS/MMKR/MMDR; **RIFA:**  
**PHE353/ PHE354:Roederstein:** MKT 1818/MKT 1822; **WIMA:** MKS; **CSF Thompson:**  
**MD/ MC;** **Siemens:** B325X-XX; **NIC:** NEM/NRM;  
**Nichicon:** DDXM; **Phillips:** 712 A1 series

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Capacitance	Volt. (V)	Size (mm)* L x T x H	Pricing			
					1	10	100	1000
26833CR	MY.001	.001µF	100	7.0 x 3.0 x 7.0	*	\$.10	\$.07	\$.05
207802CR	MY.0015/1000	.0015µF	1000	23.5 x 5.1 x 10.7	*	.11	.06	.05
26868CR	MY.0022	.0022µF	100	6.0 x 3.0 x 10.0	*	.09	.06	.04
26876CR	MY.0047	.0047µF	100	6.0 x 3.0 x 9.0	*	.14	.13	.11
207829CR	MY.0068/220	.0068µF	220	18.0 x 5.5 x 10.0	*	.12	.07	.05
26884CR	MY.01	.01µF	100	6.0 x 3.0 x 7.0	*	.10	.06	.04
207837CR	MY.018/50	.018µF	50	6.1 x 2.6 x 11.3	*	.16	.136	.102
26905CR	MY.022	.022µF	100	6.0 x 3.0 x 10.0	*	.15	.10	.06
26921CR	MY.033	.033µF	100	8.0 x 4.0 x 11.0	*	.15	.10	.06
207861CR	MY.033/400	.033µF	400	11.0 x 4.0 x 8.0	.28	.224	.198	.164
26930CR	MY.047	.047µF	100	8.0 x 4.0 x 12.0	*	.15	.10	.06
135562CR	MY.1/50	1µF††	50	14.0 x 6.0 x 12.0	*	.11	.062	.056
26956CR	MY.1	1µF	100	12.5 x 5.0 x 9.5	*	.17	.12	.07
93921CR	MY.1/250	1µF	250	12.5 x 5.5 x 10	*	.19	.16	.13
26972CR	MY.22	.22µF	100	12.5 x 5.5 x 10	*	.19	.12	.085
93964CR	MY.33/250	.33µF	250	18.0 x 7.0 x 12.5	.32	.25	.21	.19
26999CR	MY.47	.47µF	100	18.0 x 6.0 x 11.5	.39	.29	.20	.17
27001CR	MY1	1µF	100	18.0 x 7.5 x 14.0	.49	.39	.33	.29
93981CR	MY1/250	1µF	250	26.0 x 9.0 x 16.0	.50	.45	.36	.27
93999CR	MY2.2/250	2.2µF	250	26.0 x 9.0 x 16.0	.89	.69	.59	.45

†† ±20% tolerance \* Capacitor dimensions and styles may vary



JAMECO ValuePro

## Dipped Tantalum Capacitors (±10%) Resin Dipped Solid Tantalum Capacitors

- Flame retardant coating
- Low leakage current
- Exceptional temperature stability
- Moisture-resistant
- Designed for entertainment and commercial equipment

Operating temp. range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤ +85°C

### † Cross References:

**Panasonic:** EF Series; **AVX:** Tap Series; **Sprague:** 196D and 199D;  
**Matsuo:** 202; **Kemet:** T350/ T360; **Mepco:** 49GS; **NEC:** DN;  
**Nichicon:** 599; **NIC:** NDTM; **Hitachi:** TSD-3

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.†	Capacitance	Voltage (V)	Size (mm)* D x H	Pricing			
					1	10	100	1000
33487CR	TM.1	.1µF	35	4.5 x 7.0	*	\$.25	\$.19	\$.15
33508CR	TM.22	.22µF	35	4.5 x 7.0	*	.25	.19	.15
33524CR	TM.33	.33µF	35	4.5 x 7.0	*	.25	.19	.15
33532CR	TM.47	.47µF	35	4.5 x 7.0	*	.20	.15	.14
61103CR	TM.68	.68µF	35	2.9 x 5.1	*	.25	.19	.17
154861CR	TM1/25	1µF	25	3.0 x 6.0	.32	.29	.25	.22
33663CR	TM1	1µF	35	4.5 x 7.0	.32	.29	.25	.22
94002CR	TM2.2/16	2.2µF	16	4.5 x 7.0	*	.19	.16	.12
33735CR	TM2.2/25	2.2µF	35	4.5 x 7.0	.39	.35	.29	.22
33770CR	TM3.3	3.3µF	35	4.5 x 7.5	.55	.36	.33	.31
94036CR	TM4.7/16	4.7µF	16	4.5 x 7.5	.47	.38	.28	.20
94044CR	TM4.7/25	4.7µF	25	5.0 x 8.5	.49	.44	.33	.20
33807CR	TM4.7	4.7µF	35	5.5 x 9.0	.45	.42	.37	.27
33874CR	TM6.8	6.8µF	35	6.0 x 10.0	.59	.45	.36	.32
94061CR	TM10/16	10µF	16	5.0 x 9.0	.45	.39	.29	.25
94079CR	TM10/25	10µF	25	5.5 x 9.0	.59	.50	.40	.36
33690CR	TM10	10µF	35	6.0 x 10.0	.89	.79	.69	.59
33719CR	TM15	15µF	25	6.0 x 10.0	.89	.80	.72	.61
33752CR	TM22	22µF	6.3	5.0 x 9.0	.45	.37	.26	.22
94095CR	TM22/16	22µF	16	6.0 x 10.0	.69	.59	.49	.45
33786CR	TM33	33µF	25	8.0 x 13.0	2.31	2.09	1.62	1.05
94124CR	TM47/16	47µF	16	8.0 x 13.0	1.69	1.55	1.35	.95
33823CR	TM47	47µF	25	9.0 x 14.5	3.39	3.05	2.35	1.85
33701CR	TM100	100µF	6.3	7.0 x 10.5	1.19	1.09	.95	.85

### Special Limited Offers from Other Manufacturers

33486CR	TM.1	.1µF	35	4.5 x 7.0	\$.23	\$.225	\$.171	\$.135
33507CR	TM.22	.22µF	35	4.5 x 7.0	*	.225	.171	.135
33523CR	TM.33	.33µF	35	4.5 x 7.0	*	.225	.171	.135
33531CR	TM.47	.47µF	35	4.5 x 7.0	*	.18	.135	.126
61102CR	TM.68	.68µF	35	2.9 x 5.1	*	.225	.171	.153
154860CR	TM1/25	1µF	25	3.0 x 6.0	.29	.261	.225	.198
33662CR	TM1	1µF	35	4.5 x 7.0	.29	.261	.225	.198
94001CR	TM2.2/16	2.2µF	16	4.5 x 7.0	*	.171	.144	.108
94019CR	TM2.2/25	2.2µF	25	4.5 x 7.0	.35	.315	.261	.225
33734CR	TM2.2	2.2µF	35	4.5 x 7.5	.35	.315	.261	.198
33769CR	TM3.3	3.3µF	35	4.5 x 7.5	.50	.324	.297	.279
94035CR	TM4.7/16	4.7µF	16	4.5 x 7.5	.42	.342	.252	.18
94043CR	TM4.7/25	4.7µF	25	5.0 x 8.5	.44	.396	.297	.18
33806CR	TM4.7	4.7µF	35	5.5 x 9.0	.41	.378	.333	.243
33873CR	TM6.8	6.8µF	35	6.0 x 10.0	.53	.405	.324	.288
94060CR	TM10/16	10µF	16	5.0 x 9.0	.41	.351	.261	.225
94078CR	TM10/25	10µF	25	5.5 x 9.0	.53	.45	.36	.324
33689CR	TM10	10µF	35	6.0 x 10.0	.80	.71	.62	.53
33718CR	TM15	15µF	25	6.0 x 10.0	.80	.72	.65	.58
33751CR	TM22	22µF	6.3	5.0 x 9.0	.41	.37	.30	.22
94094CR	TM22/16	22µF	16	6.0 x 10.0	.62	.53	.441	.405
94107CR	TM22/25	22µF	25	7.0 x 10.5	1.59	1.45	.89	.79
33785CR	TM33	33µF	25	8.0 x 13.0	2.09	1.89	1.45	.95
94123CR	TM47/16	47µF	16	8.0 x 13.0	1.55	1.39	1.25	.86
33822CR	TM47	47µF	25	9.0 x 14.5	3.05	2.75	2.09	1.65
33700CR	TM100	100µF	6.3	7.0 x 10.5	1.09	.99	.86	.77

\* Capacitor dimensions and styles may vary

## Memory Back-Up Capacitors

- Applications:** • Memory back-up of remote controllers  
• Back-up on CMOS microcomputers, static RAM, DTSS (digital tuning systems)

- Features:** • Voltage: 5.5VDC • Small size vs. capacitance  
• Excellent voltage holding characteristics for low back-up currents

Part No.	Mfr. Cross Ref. No.	Capacitance (Farad)	1	10	100
142922CR	MBC.047/5.5	.047	\$1.50	\$1.34	\$ .99
142949CR	MBC.22/5.5	.22	2.09	1.79	1.41
143010CR	MBC.47/5.5	.47	3.49	3.15	2.59
142958CR	MBC1.0/5.5	1.0	4.75	4.29	3.49
227812CR	S5R5V105	1.0	4.99	3.99	3.29

### Special Limited Offers from Other Manufacturers

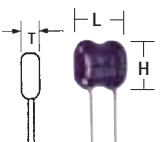
142957CR	MBC1.0/5.5	1.0	\$4.29	\$3.85	\$3.49
227811CR	S5R5V105	1.0	4.49	3.82	2.86

## Dipped Silver Mica Capacitors (±5%) Metalized Polyester Film Capacitors

- Case type: DM15 • Lead Space: 0.23" • Tolerance: ±5%
- Operating temp. range: -55° to +125°C

Part No.	Mfr. Cross Ref. No.	Capacitance	Volt. (V)	Size (mm) L x T x H*	1	10	100	1000
15991CR	DM100	10pF	500	11 x 4 x 9	\$.49	\$.38	\$.31	\$.30
16037CR	DM220	22pF	500	11 x 4 x 9	.49	.39	.29	.23
16070CR	DM330	33pF	500	11 x 4 x 9	.49	.38	.31	.29
16096CR	DM470	47pF	500	11 x 4 x 9	.49	.39	.29	.25
16002CR	DM101	100pF	500	11 x 4 x 9	.49	.39	.31	.27
16088CR	DM331	330pF	500	11 x 4 x 9	.89	.73	.55	.45
16109CR	DM471	470pF	500	11 x 4 x 9	1.05	.95	.79	.65
16011CR	DM102	1000pF	100	11 x 4 x 9	1.19	.99	.89	.79

\* Capacitor dimensions and styles may vary



For Capacitor Component Kits see page 55.

**Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion**



81875CR (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701CR), 20 clear plastic drawers (85454CR), 20 clear dividers (85446CR), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

20-drawer  
component  
cabinet with  
every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

Need a refill?  
Just call  
1-800-831-4242



81832CR (Resistor Kit)

## Radial Electrolytic Capacitor Kit

SAVE \$11

Includes 240 pcs. (15 values)  $\pm 20\%$  Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100 $\mu$ F @ 50V	1000 $\mu$ F @ 16V	1 $\mu$ F @ 50V	3.3 $\mu$ F @ 50V	22 $\mu$ F @ 50V
220 $\mu$ F @ 25V	2200 $\mu$ F @ 25V	1 $\mu$ F @ 100V	4.7 $\mu$ F @ 50V	47 $\mu$ F @ 50V
470 $\mu$ F @ 25V	3300 $\mu$ F @ 25V	2.2 $\mu$ F @ 50V	10 $\mu$ F @ 50V	100 $\mu$ F @ 25V
Part No.	Description	Wt. (lbs.)	1	10
81867CR	240 pcs. Radial Capacitor kit	5.3	\$29.95	\$26.95
130331CR	Refill for 81867CR (240 pcs.)	0.5	17.95	16.49

## Axial Electrolytic Capacitor Kit

SAVE \$13

Includes 140 pcs. (10 values)  $\pm 20\%$  Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47 $\mu$ F @ 50V	220 $\mu$ F @ 50V	1000 $\mu$ F @ 25V	1 $\mu$ F @ 50V	10 $\mu$ F @ 50V
100 $\mu$ F @ 50V	470 $\mu$ F @ 50V	2200 $\mu$ F @ 16V	4.7 $\mu$ F @ 50V	2.2 $\mu$ F @ 50V
Part No.	Description	Wt. (lbs.)	1	10
81875CR	140 pcs. Axial Capacitor kit	5.3	\$37.95	\$34.15
130340CR	Refill for 81875CR (140 pcs.)	0.6	24.95	22.49

## Mylar Capacitor Kit

SAVE \$11

Includes 280 pcs. (10 values) 100V  $\pm 10\%$  Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001 $\mu$ F	.022 $\mu$ F	.047 $\mu$ F	.47 $\mu$ F	.01 $\mu$ F
.0047 $\mu$ F	.033 $\mu$ F	.22 $\mu$ F	1 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
81883CR	280 pcs. Mylar Capacitor kit	5.1	\$37.95	\$34.15
130358CR	Refill for 81883CR (280 pcs.)	0.3	19.95	17.95

## Dipped Tantalum Capacitor Kit

SAVE \$29

Includes 150 pcs. (15 values)  $\pm 20\%$  Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1 $\mu$ F @ 35V	1 $\mu$ F @ 25V	3.3 $\mu$ F @ 35V	10 $\mu$ F @ 16V	22 $\mu$ F @ 16V
.22 $\mu$ F @ 35V	1 $\mu$ F @ 35V	4.7 $\mu$ F @ 35V	10 $\mu$ F @ 35V	33 $\mu$ F @ 25V
.47 $\mu$ F @ 35V	2.2 $\mu$ F @ 16V	6.8 $\mu$ F @ 35V	15 $\mu$ F @ 25V	47 $\mu$ F @ 25V
Part No.	Description	Wt. (lbs.)	1	10
81841CR	150 pcs. Tantalum Capacitor kit	4.8	\$79.95	\$71.95
130260CR	Refill for 81841CR (150 pcs.)	0.3	59.95	53.95

## Ceramic Disc Capacitor Kit

SAVE \$16

Includes 520 pcs. (10 values) 50V  $\pm 20\%$  Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022 $\mu$ F	.01 $\mu$ F
22pF	100pF	.001 $\mu$ F	.047 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
81859CR	520 pcs. Ceramic Capacitor kit	5.0	\$35.95	\$32.35
130232CR	Refill for 81859CR (520 pcs.)	0.3	17.95	16.49

## Monolithic Ceramic Capacitor Kit

SAVE \$10

Includes 280 pcs. (10 values) 50V  $\pm 20\%$  Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001 $\mu$ F	.047 $\mu$ F	.47 $\mu$ F	.01 $\mu$ F
100pF	.0022 $\mu$ F	.22 $\mu$ F	1 $\mu$ F	.1 $\mu$ F
Part No.	Description	Wt. (lbs.)	1	10
171475CR	280 pcs. Monolithic Capacitor kit	5.0	\$29.95	\$26.95
171483CR	Refill for 171475CR (280 pcs.)	0.3	17.95	15.95

## 1/8-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

Includes 5% pos. (+ values), 1% with 0% resistors							
10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10 $\Omega$	330 $\Omega$	1.5k $\Omega$	3.3k $\Omega$	15k $\Omega$	47k $\Omega$	100 $\Omega$	4.7k $\Omega$
47 $\Omega$	390 $\Omega$	2 $\Omega$	5.1k $\Omega$	22k $\Omega$	470k $\Omega$	220 $\Omega$	10k $\Omega$
150 $\Omega$	470 $\Omega$	2.2k $\Omega$	5.6k $\Omega$	27k $\Omega$	1M $\Omega$	1k $\Omega$	100k $\Omega$
270 $\Omega$	680 $\Omega$	2.7k $\Omega$	6.8k $\Omega$	33k $\Omega$	10M $\Omega$		
Part No.	Description	Wt. (lbs.)		1	10		
108329CR	540 pcs. 1/8-watt Resistor kit	4.9		\$24.95	\$22.49		
108302CR	Refill for 108329CR (540 pcs.)	0.2		12.95	11.49		

## 1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.2kΩ	2.7kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	1.5kΩ	3.3kΩ	20kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2kΩ	5.1kΩ	22kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.2kΩ	5.6kΩ	33kΩ	10MΩ		
Part No.	Description			Wt. (lbs.)	1	10	
81832CR	540 pcs. 1/4-watt Resistor kit			4.9 .....	\$27.95	\$24.95	
103165CR	Refill for 81832CR (540 pcs.)			0.2 .....	12.95	11.49	

## 1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10 $\Omega$	330 $\Omega$	1.5k $\Omega$	3.3k $\Omega$	15k $\Omega$	47k $\Omega$	100 $\Omega$	4.7k $\Omega$
47 $\Omega$	390 $\Omega$	2k $\Omega$	5.1k $\Omega$	22k $\Omega$	470k $\Omega$	220 $\Omega$	10k $\Omega$
150 $\Omega$	470 $\Omega$	2.2k $\Omega$	5.6k $\Omega$	27k $\Omega$	1M $\Omega$	1k $\Omega$	100k $\Omega$
270 $\Omega$	680 $\Omega$	2.7k $\Omega$	6.8k $\Omega$	33k $\Omega$	10M $\Omega$		
Part No.	Description	Wt. (lbs.)		1	10		
107879CR	540 pcs. 1/2-watt Resistor kit	5.1		\$29.95	\$26.95		
107852CR	Refill for 107879CR (540 pcs.)	0.4		14.95	13.49		

## 1/2-Watt Single Turn Cermet Pot Kit

SAVE \$28

See page 60 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500 $\Omega$	63P5k $\Omega$	63P500k $\Omega$	63P1k $\Omega$	63P50k $\Omega$
63P2k $\Omega$	63P20k $\Omega$	63P1M $\Omega$	63P10k $\Omega$	63P100k $\Omega$
Part No.	Description	Wt. (lbs.)	1	10
85032CR	100 pcs. single turn Pot kit	4.9	\$65.95	\$59.35

## 3/4-Watt 15 Turn Cermet Pot Kit

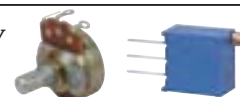
SAVE \$32

See page 60 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500 $\Omega$	43P5k $\Omega$	43P500k $\Omega$	43P1k $\Omega$	43P50k $\Omega$
43P2k $\Omega$	43P20k $\Omega$	43P1M $\Omega$	43P10k $\Omega$	43P100k $\Omega$
Part No.	Description	Wt. (lbs.)	1	10
85041CR	100 pcs. 15 turn Pot kit	4.9	\$82.95	\$74.65

See pages 58- 62 for individually  
sold potentiometers.



## 1/4-Watt Carbon Film Resistors (±5%)



## Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below  
Values may not be combined for quantity price breaks

Pricing (Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value (see Standard Resistor Values Chart below)	1 Bag	10 Bags	50 Bags	100 Bags
	\$ .99/bag	\$ .57/bag	\$ .49/bag	\$ .46/bag

99¢/bag  
100 piece bags

## Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719CR	5 ea. 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.)	\$9.95	\$8.95	\$7.95
103165CR	10 ea. 24 values marked (●) and 50 ea. 6 values marked (✱) (540 pcs.)	12.95	11.49	9.95
10663CR	100 ea. 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655CR	100 ea. 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832CR	1/4-watt resistor component cabinet kit – 30 values (540 pcs.), pg 55	27.95	24.95	22.49

## Standard Resistor Values Chart

✱▲ see above

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
30293CR	2.2	59192CR	15	29946CR	▲✱	100	31499CR	▲●	680	31026CR	▲✱	4.7k	30841CR	▲●	33k
30349CR	2.4	30197CR	16	30040CR		110	31561CR		750	31237CR	▲●	5.1k	30912CR		36k
30373CR	2.7	30234CR	18	30082CR		120	31624CR		820	31270CR	▲●	5.6k	30955CR		39k
30621CR	3.0	30411CR	20	30120CR		130	31691CR		910	31405CR		6.2k	31077CR		43k
30656CR	3.3	65736CR	22	30162CR	▲●	150	29663CR	▲✱	1.0k	31430CR		6.8k	31149CR	▲●	47k
30699CR	3.6	30541CR	24	59248CR		160	29719CR		1.1k	31536CR		7.5k	31309CR		51k
30728CR	3.9	30584CR	27	59281CR		180	29735CR	●	1.2k	31595CR		8.2k	31350CR		56k
30980CR	4.3	30752CR	30	59424CR		200	58931CR		1.3k	60353CR		9.1k	31456CR		62k
59811CR	4.7	30824CR	33	30470CR	▲✱	220	29760CR	▲●	1.5k	29911CR	▲✱	10k	31481CR		68k
31211CR	5.1	30904CR	36	30568CR		240	29786CR		1.6k	30031CR		11k	31552CR		75k
31253CR	5.6	59723CR	39	30605CR	▲●	270	29807CR		1.8k	30074CR		12k	31616CR		82k
31392CR	6.2	31069CR	43	30795CR		300	30277CR	▲●	2.0k	30111CR		13k	31683CR		91k
31421CR	6.8	31106CR	▲●	47	30867CR	▲●	330	30314CR	▲●	2.2k	30146CR	▲●	29997CR	▲✱	100k
31528CR	7.5	31296CR	51	30921CR		360	30357CR		2.4k	30200CR		16k	30058CR		110k
31587CR	8.2	31341CR	56	30963CR	●	390	30390CR	▲●	2.7k	30242CR		18k	30091CR		120k
31641CR	9.1	60089CR	62	31085CR		430	30630CR		3.0k	30429CR	●	20k	30138CR		130k
29882CR	▲●	10	60134CR	68	31165CR	▲●	470	30672CR	▲●	3.3k	30453CR	▲●	30171CR		150k
59061CR	11	60222CR	75	31317CR		510	30701CR		3.6k	30550CR		24k	30226CR		160k
30066CR	12	60302CR	82	31376CR		560	30736CR		3.9k	30592CR		27k	30269CR		180k
30103CR	13	31675CR	91	31464CR		620	59782CR		4.3k	30779CR		30k	30437CR		200k
													29751CR		1.3M
													29938CR	▲●	10M

## 1/8-Watt Carbon Film Resistor (±5%) Assortments

• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values included	Description (see chart below)	Pricing	
				1	10
108302CR	ASST1830	✱	10 ea. of 24 values marked by ✱ and 50 ea. of 6 values marked below by # (540 pcs.)	\$12.95	\$11.49
108290CR	ASST1827	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	29.95	26.95
108329CR	CAB182R	–	1/8-watt resistor component cabinet kit – 30 values (540 pcs.), see page 55	24.95	22.49

## 1/8 &amp; 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✓✱	150 ✓✱	330 ✓✱	680 ✓✱	2.0k ✓✱	3.3k ✓✱	5.6k ✓✱	15k ✓✱	33k ✓✱	470k ✓✱
47 ✓✱	220 ✓✱	390 ✱	1.0k ✱	2.2k ✱	4.7k ✱	6.8k ✱	22k ✱	47k ✱	1.0M ✱
100 ✱	270 ✱	470 ✱	1.5k ✱	2.7k ✱	5.1k ✱	10k ✱	27k ✱	100k ✱	10M ✱

(✓), (✱), (#) symbols indicate Resistor values included in Assortments above and below.

## 1/2-Watt Carbon Film Resistor (±5%) Assortments

• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing	
				1	10
107852CR	ASST1230	✱	10 ea. of 24 values marked by ✱ and 50 ea. of 6 values marked by # (540 pcs.)	\$14.95	\$13.49
107844CR	ASST1227	✓	100 ea. of 27 values marked by ✓ (2,700 pcs.)	34.95	31.49
107836CR	ASST1270	–	5 ea. of 70 values (every other value from 10Ω - 5.6MΩ) (350 pcs.) (see chart above)	10.95	9.95
107879CR	CAB12R	–	1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 55	29.95	26.95

## Jameco's Low-Price Guarantee

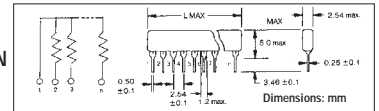
Happen to find a like product at a lower print-advertised price?  
We'll beat that price by 10%!

## Single-In-Line "SIP" Resistor Networks (±2%)

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):

- 8-pin package (7 resistors) = 8BRN
- 10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body ht.)
- Low profile is compatible w/ DIPs
- Cermet thick film construction



Part No.	Pins	Ohms
97826CR	8	10k
97851CR	10	330
97869CR	10	470
97877CR	10	1.0k
97893CR	10	2.2k
24660CR	10	4.7k
24643CR	10	10k
98087CR	10	47k
98095CR	10	100k

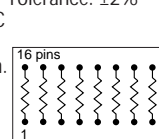
Pricing per each			
1	10	100	1000
\$ .25	\$ .19	\$ .15	\$ .12
Pricing for P/N 97826			
\$ .24	\$ .18	\$ .14	\$ .11

## Dual-In-Line "DIP" Resistor Networks (±2%)

16-Pin Isolated (140mW/Resistor) ±2%

Features (161RN):

- Maximum operating voltage: 100V
- Temperature coefficient: ±100ppm/°C
- Operating temp.: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



Part No.	Ohms
164005CR	33
108556CR	100
108564CR	220
108572CR	330
108581CR	470
108599CR	1.0k
108610CR	4.7k
108628CR	10k
108644CR	100k

Pricing per each			
1	10	100	1000
\$ .39	\$ .35	\$ .31	\$ .29

## SIP and DIP Resistor Network Cross Reference Chart

Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN...	770-81-R...	708A...	4608X-101...	CSC08A01...	L08-1-R...	356CF... X2PD	9S08... GL002
10BRN...	770-101-R...	710A...	4610X-101...	CSC10A01...	L10-1-R...	256CX... X2PD	9S10... GL002
161RN...	761-3-R...	316B...	4116R-001...	MDP16-03...	898-3-R...	916C... X5SR	D16H... 12-J



## 6, 8, and 10-Pin Bussed Single-In-Line "SIP" Resistor Networks (±2%)

## 6-Pin Resistor Network, 4606X Series Value Equivalents

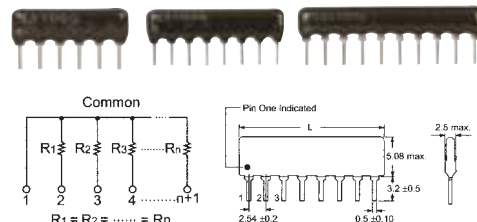
Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267098CR	4606X-101-100	10	267872CR	4606X-101-681	680	268082CR	4606X-101-223	22k
267670CR	4606X-101-220	22	267881CR	4606X-101-821	820	268091CR	4606X-101-273	27k
267688CR	4606X-101-270	27	267899CR	4606X-101-102	1.0k	268103CR	4606X-101-333	33k
267696CR	4606X-101-330	33	267901CR	4606X-101-122	1.2k	268111CR	4606X-101-393	39k
267709CR	4606X-101-390	39	267910CR	4606X-101-152	1.5k	268120CR	4606X-101-473	47k
267717CR	4606X-101-470	47	267928CR	4606X-101-182	1.8k	268138CR	4606X-101-563	56k
267725CR	4606X-101-510	51	267936CR	4606X-101-202	2.0k	268146CR	4606X-101-683	68k
267733CR	4606X-101-560	56	267944CR	4606X-101-222	2.2k	268154CR	4606X-101-823	82k
267741CR	4606X-101-680	68	267952CR	4606X-101-272	2.7k	268162CR	4606X-101-104	100k
267750CR	4606X-101-820	82	267961CR	4606X-101-332	3.3k	268171CR	4606X-101-124	120k
267768CR	4606X-101-101	100	267979CR	4606X-101-392	3.9k	268189CR	4606X-101-154	150k
267776CR	4606X-101-121	120	267987CR	4606X-101-472	4.7k	268197CR	4606X-101-184	180k
267784CR	4606X-101-151	150	267995CR	4606X-101-512	5.1k	268200CR	4606X-101-224	220k
267792CR	4606X-101-181	180	268007CR	4606X-101-562	5.6k	268218CR	4606X-101-274	270k
267805CR	4606X-101-221	220	268015CR	4606X-101-682	6.8k	268226CR	4606X-101-334	330k
267813CR	4606X-101-271	270	268023CR	4606X-101-822	8.2k	268234CR	4606X-101-394	390k
267821CR	4606X-101-331	330	268031CR	4606X-101-103	10k	268242CR	4606X-101-474	470k
267830CR	4606X-101-391	390	268040CR	4606X-101-123	12k	268251CR	4606X-101-564	560k
267848CR	4606X-101-471	470	268058CR	4606X-101-153	15k	268269CR	4606X-101-684	680k
267856CR	4606X-101-511	510	268066CR	4606X-101-183	18k	268277CR	4606X-101-824	820k
267864CR	4606X-101-561	560	268074CR	4606X-101-203	20k	268285CR	4606X-101-105	1.0M

## 8-Pin Resistor Network, 4608X Series Value Equivalents

Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267354CR	4608X-101-100	10	276066CR	4608X-101-681	680	276277CR	4608X-101-223	22k
275864CR	4608X-101-220	22	276074CR	4608X-101-821	820	276285CR	4608X-101-273	27k
275872CR	4608X-101-270	27	276082CR	4608X-101-102	1.0k	276293CR	4608X-101-333	33k
275881CR	4608X-101-330	33	276091CR	4608X-101-122	1.2k	276306CR	4608X-101-393	39k
275899CR	4608X-101-390	39	276103CR	4608X-101-152	1.5k	276314CR	4608X-101-473	47k
275901CR	4608X-101-470	47	276111CR	4608X-101-182	1.8k	276322CR	4608X-101-563	56k
275910CR	4608X-101-510	51	276120CR	4608X-101-202	2.0k	276331CR	4608X-101-683	68k
275928CR	4608X-101-560	56	276138CR	4608X-101-222	2.2k	276349CR	4608X-101-823	82k
275936CR	4608X-101-680	68	276146CR	4608X-101-272	2.7k	276357CR	4608X-101-104	100k
275944CR	4608X-101-820	82	276154CR	4608X-101-332	3.3k	276365CR	4608X-101-124	120k
275952CR	4608X-101-101	100	276162CR	4608X-101-392	3.9k	276373CR	4608X-101-154	150k
275961CR	4608X-101-121	120	276171CR	4608X-101-472	4.7k	276381CR	4608X-101-184	180k
275979CR	4608X-101-151	150	276189CR	4608X-101-512	5.1k	276390CR	4608X-101-224	220k
275987CR	4608X-101-181	180	276197CR	4608X-101-562	5.6k	276402CR	4608X-101-274	270k
275995CR	4608X-101-221	220	276200CR	4608X-101-682	6.8k	276411CR	4608X-101-334	330k
276007CR	4608X-101-271	270	276218CR	4608X-101-822	8.2k	276429CR	4608X-101-394	390k
276015CR	4608X-101-331	330	276226CR	4608X-101-103	10k	276437CR	4608X-101-474	470k
276023CR	4608X-101-391	390	276234CR	4608X-101-123	12k	276445CR	4608X-101-564	560k
276031CR	4608X-101-471	470	276242CR	4608X-101-153	15k	276453CR	4608X-101-684	680k
276040CR	4608X-101-511	510	276251CR	4608X-101-183	18k	276461CR	4608X-101-824	820k
276058CR	4608X-101-561	560	276269CR	4608X-101-203	20k	276470CR	4608X-101-105	1.0M

## 10-Pin Resistor Network, 4610X Series Value Equivalents

Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs	Part No.	Mfr. Cross Ref.	OHMs
267418CR	4610X-101-100	10	280786CR	4610X-101-681	680	280997CR	4610X-101-223	22k
280583CR	4610X-101-220	22	280794CR	4610X-101-821	820	281009CR	4610X-101-273	27k
280591CR	4610X-101-270	27	280807CR	4610X-101-102	1.0k	281017CR	4610X-101-333	33k
280604CR	4610X-101-330	33	280815CR	4610X-101-122	1.2k	281025CR	4610X-101-393	39k
280612CR	4610X-101-390	39	280823CR	4610X-101-152	1.5k	281033CR	4610X-101-473	47k
280621CR	4610X-101-470	47	280831CR	4610X-101-182	1.8k	281041CR	4610X-101-563	56k
280639CR	4610X-101-510	51	280840CR	4610X-101-202	2.0k	281050CR	4610X-101-683	68k
280647CR	4610X-101-560	56	280858CR	4610X-101-222	2.2k	281068CR	4610X-101-823	82k
280655CR	4610X-101-680	68	280866CR	4610X-101-272	2.7k	281076CR	4610X-101-104	100k
280663CR	4610X-101-820	82	280874CR	4610X-101-332	3.3k	281084CR	4610X-101-124	120k
280671CR	4610X-101-101	100	280882CR	4610X-101-392	3.9k	281092CR	4610X-101-154	150k
280680CR	4610X-101-121	120	280891CR	4610X-101-472	4.7k	281105CR	4610X-101-184	180k
280698CR	4610X-101-151	150	280903CR	4610X-101-512	5.1k	281113CR	4610X-101-224	220k
280701CR	4610X-101-181	180	280911CR	4610X-101-562	5.6k	281121CR	4610X-101-274	270k
280719CR	4610X-101-221	220	280920CR	4610X-101-682	6.8k	281130CR	4610X-101-334	330k
280727CR	4610X-101-271	270	280938CR	4610X-101-822	8.2k	281148CR	4610X-101-394	390k
280735CR	4610X-101-331	330	280946CR	4610X-101-103	10k	281156CR	4610X-101-474	470k
280743CR	4610X-101-391	390	280954CR	4610X-101-123	12k	281164CR	4610X-101-564	560k
280751CR	4610X-101-471	470	280962CR	4610X-101-153	15k	281172CR	4610X-101-684	680k
280760CR	4610X-101-511	510	280971CR	4610X-101-183	18k	281181CR	4610X-101-824	820k
280778CR	4610X-101-561	560	280989CR	4610X-101-203	20k	281199CR	4610X-101-105	1.0M



- Miniature, high density packaging
- Operating temperature range: -55°C to +125°C
- Temperature coefficient range: ±100ppm: 50Ω – 1.0MΩ; ±250ppm: <50Ω or >1.0M
- Rating ambient temperature: +70°C
- Wattage/element: 1/8 Watt
- Max. working voltage: 100V
- Prepackaged: order in increments of 10, 100, 500 or 1000

## 6-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .14	\$ .085	\$ .076	\$ .071


## 8-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .19	\$ .122	\$ .114	\$ .105

## 10-Pin Resistor Network Pricing

Qty.	10	100	500	1000
Price	\$ .23	\$ .16	\$ .14	\$ .13

0805 Resistor Assortment (±5%)  
144 Values, 50 pcs. each; 7,200 Pieces Total



Resistance Value Chart:									
1.2	10	75	430	2.0k	10k	51k	270k	2.2M	
1.6	16	85	470	2.2k	11k	56k	300k	2.4M	
2.2	18	91	510	2.4k	12k	62k	360k	2.7M	
2.4	20	110	560	2.7k	13k	68k	390k	3.0M	
2.7	22	120	620	3.0k	15k	75k	430k	3.3M	
3.0	24	130	680	3.3k	16k	82k	470k	3.6M	
3.3	27	150	750	3.6k	18k	91k	510k	3.9M	
4.3	30	160	820	3.9k	20k	100k	560k	4.3M	
4.7	33	180	910	4.3k	22k	110k	620k	4.7M	
5.1	39	200	1.0k	4.7k	24k	120k	750k	5.1M	
5.6	43	220	1.1k	5.6k	27k	150k	820k	5.6M	
6.2	47	240	1.2k	6.2k	30k	160k	910k	6.8M	
6.8	51	270	1.3k	6.8k	33k	180k	1.0M	7.5M	
7.5	56	300	1.5k	7.5k	36k	200k	1.6M	8.2M	
8.2	62	360	1.6k	8.2k	39k	220k	1.8M	9.1M	
9.1	68	390	1.8k	9.1k	43k	240k	2.0M	10M	

- Size (mm):  
2.0L x  
1.25W x  
0.5Thick
- Max.  
overload  
voltage:  
200V
- 1/2 watt

- Size (mm): 3.0 x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Operating temperature: -50°C to 120°C
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T
- Weight: 1.9 lbs.

Includes: Case with labels

Part No.	Mfr. Cross Ref. No.	1	10	25
172806CR	16-500	\$79.95	\$71.95	\$64.79

1206 Resistor Assortment (±1%)  
56 Values, 200 pcs. each; 11,200 pcs. Total

Packaged in strips of  
200 pcs. each

• Max. working voltage: 200V

• Power: 1/8W

• Operating temperature:  
55°C to +125°C

Value Chart (Ohms)

10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	499k
90.9	1.5k	30.1k	619k
100	2k	39.2k	750k
121	2.43k	49.9k	909k
150	3.01k	61.9k	1M

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55°C to +125°C
- Temp. coefficient: ±100 ppm/°C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

Part No.	Mfr. Cross Ref. No.	1	10	25
156881CR	SMR1206SB	\$99.99	\$89.99	\$79.99



## 1/2-Watt Linear Taper (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.50"
- Maximum panel thickness: 0.1875"



29081CR

Includes: Mounting hardware

Qty.	1	10	100	500
Price	\$ .99	\$ .79	\$ .65	\$ .55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
29049CR	P1K	1k	29102CR	P100K	100k
29196CR	P5K	5k	29065CR	P1MEG	1M
29081CR	P10K	10k			



## RV4N Style 2-Watt Linear Taper (±10%)

- Shaft diameter: 0.25"
- Shaft length: 0.875"
- 2W @ 70°C ambient
- Conductive plastic element
- Temp. range: -55°C to +120°C
- Non-rotational key
- Mounting hole: 0.375"
- Maximum panel thickness: 0.25"



95417CR

Includes: Mounting hardware

Qty.	1	10	25	50
Price	\$7.39	\$6.54	\$5.45	\$4.51

Part No.	Product No.	Military No.	Ohms
241550CR	53C3-50	RV4NAYSD500A	50
241568CR	53C3-100	RV4NAYSD101A	100
241576CR	53C3-150	RV4NAYSD151A	150
241584CR	53C3-250	RV4NAYSD251A	250
241592CR	53C3-350	RV4NAYSD351A	350
183610CR	53C3-500	RV4NAYSD501A	500
13936CR	53C3-1k	RV4NAYSD102A	1k
241605CR	53C3-1.5k	RV4NAYSD152A	1.5k
241613CR	53C3-2k	RV4NAYSD202A	2k
241621CR	53C3-2.5k	RV4NAYSD252A	2.5k
241630CR	53C3-3.5k	RV4NAYSD352A	3.5k
13995CR	53C3-5k	RV4NAYSD502A	5k
13952CR	53C3-10k	RV4NAYSD103A	10k
241648CR	53C3-15k	RV4NAYSD153A	15k
241656CR	53C3-20k	RV4NAYSD203A	20k
241664CR	53C3-25k	RV4NAYSD253A	25k
95417CR	53C3-50k	RV4NAYSD503A	50k
13979CR	53C3-100k	RV4NAYSD104A	100k
241672CR	53C3-150k	RV4NAYSD154A	150k
241681CR	53C3-250k	RV4NAYSD254A	250k
241699CR	53C3-350k	RV4NAYSD354A	350k
241701CR	53C3-500k	RV4NAYSD504A	500k
241710CR	53C3-750k	RV4NAYSD754A	750k
241728CR	53C3-1Meg	RV4NAYSD105A	1M
241736CR	53C3-2Meg	RV4NAYSD205A	2M
286942CR	53C3-3Meg	RV4NAYSD305A	3M

We want to hear from you.  
Tell us what you think...  
[feedback@Jameco.com](mailto:feedback@Jameco.com).



## 1/2-Watt 24mm Linear Taper (±20%)



255476CR



255610CR



264372CR

- Maximum voltage: 500V
- Rotational angle: 300° (±5°)
- Withstanding voltage for 1 minute: 500VAC

### 0.335"L shaft; solder lugs

Qty.	1	10	100	500
Price	\$1.18	\$ .91	\$ .83	\$ .76

Part No.	Product No.	Ohms
255476CR	RV24A-10-15R1-B500	500
255484CR	RV24A-10-15R1-B1K	1k
255492CR	RV24A-10-15R1-B2K	2k
255505CR	RV21A-10-15R1-B2.5K	2.5k
255513CR	RV24A-10-15R1-B5K	5k
255521CR	RV24A-10-15R1-B10K	10k
255530CR	RV24A-10-15R1-B25K	25k
255548CR	RV24A-10-15R1-B50K	50k
255556CR	RV24A-10-15R1-B100K	100k
255564CR	RV24A-10-15R1-B250K	250k
255572CR	RV24A-10-15R1-B500K	500k
255581CR	RV24A-10-15R1-B1M	1M
255599CR	RV24A-10-15R1-B2M	2M
255601CR	RV24A-10-15R1-B5M	5M

### 0.531"L knurled shaft; solder lugs

Qty.	1	10	100	500
Price	\$1.18	\$ .91	\$ .83	\$ .76

Part No.	Product No.	Ohms
255610CR	RV24A-10-40R1-B500	500
255628CR	RV24A-10-40R1-B1K	1k
255636CR	RV24A-10-40R1-B2K	2k
255644CR	RV24A-10-40R1-B2.5K	2.5k
255652CR	RV24A-10-40R1-B5K	5k
255661CR	RV24A-10-40R1-B10K	10k
255679CR	RV24A-10-40R1-B25K	25k
264428CR	RV24A-10-20K-B50K	50k
264436CR	RV24A-10-20K-B100K	100k
264444CR	RV24A-10-20K-B250K	250k
264452CR	RV24A-10-20K-B500K	500k
264461CR	RV24A-10-20K-B1M	1M
264479CR	RV24A-10-20K-B2M	2M

### 1.32"L shaft; solder pins

Qty.	1	10	100	500
Price	\$1.13	\$ .95	\$ .86	\$ .79

Part No.	Product No.	Ohms
264372CR	RV24A-10-20K-B500	500
264381CR	RV24A-10-20K-B1K	1k
264399CR	RV24A-10-20K-B2K	2k
264401CR	RV24A-10-20K-B5K	5k
264410CR	RV24A-10-20K-B10K	10k
264428CR	RV24A-10-20K-B50K	50k
255695CR	RV24A-10-40R1-B100K	100k
255708CR	RV24A-10-40R1-B25K	250k
255716CR	RV24A-10-40R1-B500K	500k
255724CR	RV24A-10-40R1-B1M	1M
255732CR	RV24A-10-40R1-B5M	5M



## 1/2-Watt 24mm Linear Taper with SPST Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs
- Maximum voltage: 500V
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)



263759CR

Qty.	1	10	100	500
Price	\$1.62	\$1.36	\$1.24	\$1.13

Part No.	Product No.	Ohms
263759CR	RV24A01-10-15R1-B500	500
263767CR	RV24A01-10-15R1-B1K	1k
263775CR	RV24A01-10-15R1-B2.5K	2.5k
263783CR	RV24A01-10-15R1-B5K	5k
263791CR	RV24A01-10-15R1-B10K	10k
263804CR	RV24A01-10-15R1-B25K	25k
263812CR	RV24A01-10-15R1-B50K	50k
263821CR	RV24A01-10-15R1-B100K	100k
263839CR	RV24A01-10-15R1-B250K	250k
263847CR	RV24A01-10-15R1-B500K	500k
263855CR	RV24A01-10-15R1-B1M	1M



## 1/4-Watt 24mm Audio Taper (±20%)

- Shaft length: 0.335"
- Maximum voltage: 250V
- Shaft diameter: .250"
- Terminal type: solder lugs
- Insulation resistance: >100MΩ @ 500VDC
- Rotational angle: 300° (±5°)



255396CR

Qty.	1	10	100	500
Price	\$1.18	\$ .90	\$ .83	\$ .76

Part No.	Product No.	Ohms
255396CR	RV24A-10-15R1-A1K	1k
255417CR	RV24A-10-15R1-A5K	5k
255425CR	RV24A-10-15R1-A10K	10k
255433CR	RV24A-10-15R1-A50K	50k
255441CR	RV24A-10-15R1-A100K	100k
255450CR	RV24A-10-15R1-A500K	500k
255468CR	RV24A-10-15R1-A1M	1M



## 1/4-Watt 24mm Audio Taper with SPST Switch (±20%)

- Shaft length: 0.590"
- Voltage rating: 250V
- Shaft diameter: .250"
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)



263601CR

Qty.	1	10	100	500
Price	\$1.62	\$1.36	\$1.24	\$1.13

Part No.	Product No.	Ohms
263601CR	RV24A01-10-15R1-A1K	1k
263610CR	RV24A01-10-15R1-A5K	5k
263636CR	RV24A01-10-15R1-A10K	10k
263644CR	RV24A01-10-15R1-A50K	50k
263652CR	RV24A01-10-15R1-A100K	100k
263661CR	RV24A01-10-15R1-A500K	500k
263679CR	RV24A01-10-15R1-A1M	1M

For Instrumentation  
Knobs see page 123.





## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"L
- Rated voltage: 200V
- Shaft diameter: .250"
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Center detent
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.35	\$1.13	\$1.04	\$0.94

Part No.	Product No.	Ohms
286352CR	RV16A-10-15R1-B1K-OC	1k
286361CR	RV16A-10-15R1-B2K-OC	2k
286379CR	RV16A-10-15R1-B5K-OC	5k
286387CR	RV16A-10-15R1-B10K-OC	10k
286395CR	RV16A-10-15R1-B25K-OC	25k
286408CR	RV16A-10-15R1-B50K-OC	50k
286416CR	RV16A-10-15R1-B100K-OC	100k
286424CR	RV16A-10-15R1-B250K-OC	250k
286432CR	RV16A-10-15R1-B500K-OC	500k
286441CR	RV16A-10-15R1-B1M-OC	1M



## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Insulation resistance: >100MΩ @ 500VDC
- 11-detent position
- Withstanding voltage: 500VAC, 1 minute



Qty.	1	10	100	500
Price	\$1.65	\$1.38	\$1.25	\$1.13

Part No.	Product No.	Ohms
286459CR	RV16A-10-15R1-B1K-OD	1k
286467CR	RV16A-10-15R1-B2K-OD	2k
286475CR	RV16A-10-15R1-B5K-OD	5k
286483CR	RV16A-10-15R1-B10K-OD	10k
286491CR	RV16A-10-15R1-B25K-OD	25k
286504CR	RV16A-10-15R1-B50K-OD	50k
286512CR	RV16A-10-15R1-B100K-OD	100k
286521CR	RV16A-10-15R1-B250K-OD	250k
286539CR	RV16A-10-15R1-B500K-OD	500k
286547CR	RV16A-10-15R1-B1M-OD	1M



## 1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: solder lugs
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$3.55	\$2.96	\$2.70	\$2.45

Part No.	Product No.	Ohms
28660CR	RV16B-10-15R1-B1K	1k
286678CR	RV16B-10-15R1-B5K	5k
286686CR	RV16B-10-15R1-B10K	10k
286694CR	RV16B-10-15R1-B50K	50k
286707CR	RV16B-10-15R1-B100K	100k



## 1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: PC terminals (horizontal)
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$3.55	\$2.96	\$2.70	\$2.45

Part No.	Product No.	Ohms
286731CR	RV16B-20-15R1-B10K	10k
286740CR	RV16B-20-15R1-B50K	50K
286758CR	RV16B-20-15R1-B100K	100k



## 1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotation angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.15	\$1.00	\$0.87	\$0.80

Part No.	Product No.	Ohms
286248CR	RV16A-10-15R1-B1K	1k
286256CR	RV16A-10-15R1-B2K	2k
286264CR	RV16A-10-15R1-B5K	5k
286272CR	RV16A-10-15R1-B10K	10k
286281CR	RV16A-10-15R1-B25K	25k
286299CR	RV16A-10-15R1-B50K	50k
286301CR	RV16A-10-15R1-B100K	100k
286310CR	RV16A-10-15R1-B250K	250k
286328CR	RV16A-10-15R1-B500K	500k
286336CR	RV16A-10-15R1-B1M	1M
286344CR	RV16A-10-15R1-B1.2M	1.2M



## 1/5-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft Length: 0.374"
- Rated voltage: 200V
- Shaft diameter: .250"
- Terminal type: PC terminal (vertical; back)
- Total rotation angle: 270° (±5°)
- Rotation life: 100,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Switch contact resistance: <100mΩ
- Switch rating: 250VAC 10A



Qty.	1	10	100	500
Price	\$2.25	\$1.90	\$1.73	\$1.57

Part No.	Product No.	Ohms
286766CR	RV16C-40-16F1-B5K	5k
286774CR	RV16C-40-16F1-B10K	10k
286782CR	RV16C-40-16F1-B50K	50k
286791CR	RV16C-40-16F1-B500K	500k



## 1/8-Watt 16mm Linear Taper

- Shaft length: 0.531"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Tolerance: <1MΩ (±20%); ≥1MΩ (±30%)
- Dielectric strength: 500VAC for 1 minute



Qty.	1	10	100	500
Price	\$1.19	\$1.00	\$0.83	\$0.70

Part No.	Product No.	Ohms
286061CR	RV16A-10-20R1-B1K	1k
286184CR	RV16A-10-20R1-B2K	2k
286192CR	RV16A-10-20R1-B5K	5k
286205CR	RV16A-10-20R1-B10K	10k
286213CR	RV16A-10-20R1-B50K	50k
286854CR	RV16A-10-20R1-B100K	100k
286221CR	RV16A-10-20R1-B500K	500k
286230CR	RV16A-10-20R1-B1M	1M



## 1/8-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft Length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs double row
- Rated voltage: 200V
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- Switch contact resistance: 20mΩ
- Switch rating: 12VDC/1A



Qty.	1	10	100	500
Price	\$1.95	\$1.62	\$1.47	\$1.34

Part No.	Product No.	Ohms
286598CR	RV16A03-10-15R1-B1K	1k
286601CR	RV16A03-10-15R1-B5K	5k
286619CR	RV16A03-10-15R1-B10K	10k
286627CR	RV16A03-10-15R1-B50K	50k
286635CR	RV16A03-10-15R1-B100K	100k
286643CR	RV16A03-10-15R1-B500K	500k
286651CR	RV16A03-10-15R1-B1M	1M



## 1/10-Watt 16mm Audio Taper (±20%)

- Shaft length: 0.335"
- Rated voltage: 200V
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- 11-detent positions



Qty.	1	10	100	500
Price	\$1.65	\$1.38	\$1.25	\$1.13

Part No.	Product No.	Ohms
286555CR	RV16A-10-15R1-A10K-OD	10k
286563CR	RV16A-10-15R1-A50K-OD	50k
286571CR	RV16A-10-15R1-A100K-OD	100k
286580CR	RV16A-10-15R1-A1M-OD	1M

Sale items highlighted in yellow. Great quantity discounts highlighted in green.



**1/2-Watt, 3/8" Square,  
Single-Turn Cermet ( $\pm 10\%$ )**



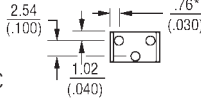
- New Lower  
Prices**



## 1/4-Watt, 1/4" Square Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )

### 3266W Series Value Equivalents

- Resistance tolerance:  $\pm 10\%$
- 12-turns nominal
- Insulation resistance: (500VDC) 1,000M $\Omega$  minimum
- Contact resistance variation: 3% or 3 $\Omega$  maximum (whichever is greater)
- Absolute min. resistance: 1% or 2 $\Omega$  maximum (whichever is greater)
- Power rating: 0.25W @ 70°C (300V maximum)



Qty.	1	10	50	100
Price	\$2.29	\$1.99	\$1.93	\$1.83

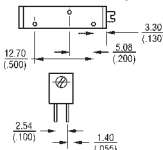
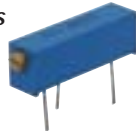
Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
254609CR	3266W-500	50	254684CR	3266W-203	20k
254617CR	3266W-101	100	254692CR	3266W-253	25k
254625CR	3266W-201	200	254705CR	3266W-503	50k
254633CR	3266W-501	500	254713CR	3266W-104	100k
254641CR	3266W-102	1k	254721CR	3266W-204	200k
254650CR	3266W-202	2k	254730CR	3266W-504	500k
254668CR	3266W-502	5k	254748CR	3266W-105	1M
254676CR	3266W-103	10k			



## 3/4-Watt, 3/4" Rectangular, 15-Turn Cermet Potentiometer Side Adjustment ( $\pm 10\%$ )

### 3006P Series Value Equivalents

- Low PC board profile
- Temperature range: -55°C to 125°C
- Absolute minimum resistance: 1% or 2 $\Omega$
- Contact resistance variation: 1% or 1 $\Omega$  maximum
- Power rating: 0.75W @ 70°C (400V maximum)



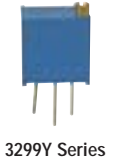
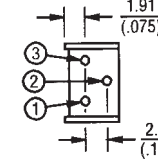
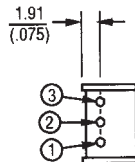
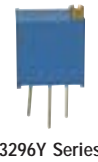
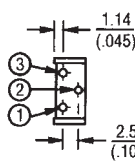
Qty.	1	10	50	100
Price	\$1.25	\$1.15	\$0.99	\$0.89

Part No.	Cross Ref No.	Ohms	Part No.	Cross Ref No.	Ohms
241234CR	3006P-101	100	241314CR	3006P-253	25k
241242CR	3006P-201	200	241322CR	3006P-503	50k
241251CR	3006P-501	500	241331CR	3006P-104	100k
241269CR	3006P-102	1k	241349CR	3006P-204	200k
241277CR	3006P-202	2k	241357CR	3006P-254	250k
241285CR	3006P-502	5k	241365CR	3006P-504	500k
241293CR	3006P-103	10k	241373CR	3006P-105	1M
241306CR	3006P-203	20k			

For Surface  
Mount Capacitors  
see page 51.



## 1/2-Watt, 3/8" Square, Multi-Turn Trimming Potentiometers, Top Adjustment ( $\pm 10\%$ )



### 3296Y, 3299W, and 3299Y Series

- Resistance tolerance:  $\pm 10\%$
- Insulation resistance: (500VDC) 1000M $\Omega$  min.
- Absolute minimum resistance: 1% or 2 $\Omega$  max.

- 25-turns nominal
- Contact resistance variation: 1% or 3 $\Omega$  max.
- Power rating: 0.5W @ 70°C (300V max.)

### Attention Budget-Minded Buyers!

Jameco now offers high-quality Bourns® equivalents below, and they're priced to save you money. You'll get consistent form, fit and function, without paying the added surcharge for brand name components.

### Jameco ValuePro 3296Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$1.89	\$1.69	\$1.49	\$1.35

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240696CR	3296Y-100	10	240784CR	3296Y-103	10k
240709CR	3296Y-200	20	240792CR	3296Y-203	20k
240717CR	3296Y-500	50	240805CR	3296Y-253	25k
240725CR	3296Y-101	100	240813CR	3296Y-503	50k
240733CR	3296Y-201	200	240821CR	3296Y-104	100k
240741CR	3296Y-501	500	240830CR	3296Y-254	250k
240750CR	3296Y-102	1k	240848CR	3296Y-504	500k
240768CR	3296Y-202	2k	240856CR	3296Y-105	1M
240776CR	3296Y-502	5k	240864CR	3296Y-205	2M

### Jameco ValuePro 3299W – In-Line Solder Pins

Qty.	1	10	50	100
Price	\$2.09	\$1.99	\$1.75	\$1.55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
241058CR	3299W-100	10	241146CR	3299W-103	10k
241066CR	3299W-200	20	241154CR	3299W-203	20k
241074CR	3299W-500	50	241162CR	3299W-253	25k
241082CR	3299W-101	100	241171CR	3299W-503	50k
241091CR	3299W-201	200	241189CR	3299W-104	100k
241103CR	3299W-501	500	241197CR	3299W-254	250k
241111CR	3299W-102	1k	241200CR	3299W-504	500k
241120CR	3299W-202	2k	241218CR	3299W-105	1M
241138CR	3299W-502	5k	241226CR	3299W-205	2M

### Jameco ValuePro 3299Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.09	\$1.99	\$1.75	\$1.55

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240872CR	3299Y-100	10	240961CR	3299Y-103	10k
240881CR	3299Y-200	20	240979CR	3299Y-203	20k
240899CR	3299Y-500	50	240987CR	3299Y-253	25k
240901CR	3299Y-101	100	240995CR	3299Y-503	50k
240910CR	3299Y-201	200	191409CR	3299Y-104	100k
191417CR	3299Y-501	500	241015CR	3299Y-254	250k
191396CR	3299Y-102	1k	241023CR	3299Y-504	500k
240944CR	3299Y-202	2k	241031CR	3299Y-105	1M
191425CR	3299Y-502	5k	241040CR	3299Y-205	2M

### Bourns® Potentiometers

Jameco now offers a broad selection of industry-renowned Bourns multi-turn potentiometers below. They're ideal for integration into devices requiring high-precision pots.

### Bourns 3296Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.10	\$1.89	\$1.69	\$1.49

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240338CR	3296Y-1-100	10	240426CR	3296Y-1-103	10k
240346CR	3296Y-1-200	20	240434CR	3296Y-1-203	20k
240354CR	3296Y-1-500	50	240442CR	3296Y-1-253	25k
240362CR	3296Y-1-101	100	240451CR	3296Y-1-503	50k
240371CR	3296Y-1-201	200	240469CR	3296Y-1-104	100k
240389CR	3296Y-1-501	500	240477CR	3296Y-1-254	250k
240397CR	3296Y-1-102	1k	240485CR	3296Y-1-504	500k
240400CR	3296Y-1-202	2k	240493CR	3296Y-1-105	1M
240418CR	3296Y-1-502	5k	240506CR	3296Y-1-205	2M

### Bourns 3299W – In-Line Solder Pins

Qty.	1	10	50	100
Price	\$2.39	\$2.25	\$1.99	\$1.79

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
238553CR	3299W-1-100	10	183564CR	3299W-1-103	10k
238561CR	3299W-1-200	20	238633CR	3299W-1-203	20k
238570CR	3299W-1-500	50	238641CR	3299W-1-253	25k
238588CR	3299W-1-101	100	238650CR	3299W-1-503	50k
238596CR	3299W-1-201	200	183572CR	3299W-1-104	100k
238609CR	3299W-1-501	500	238668CR	3299W-1-254	250k
183556CR	3299W-1-102	1k	238676CR	3299W-1-504	500k
238617CR	3299W-1-202	2k	238684CR	3299W-1-105	1M
238625CR	3299W-1-502	5k	238692CR	3299W-1-205	2M

### Bourns 3299Y – Y Layout Solder Pins

Qty.	1	10	50	100
Price	\$2.39	\$2.19	\$1.79	\$1.59

Part No.	Product No.	Ohms	Part No.	Product No.	Ohms
240514CR	3299Y-1-100	10	240602CR	3299Y-1-103	10k
240522CR	3299Y-1-200	20	240611CR	3299Y-1-203	20k
240531CR	3299Y-1-500	50	240629CR	3299Y-1-253	25k
240549CR	3299Y-1-101	100	240637CR	3299Y-1-503	50k
240557CR	3299Y-1-201	200	240645CR	3299Y-1-104	100k
240565CR	3299Y-1-501	500	240653CR	3299Y-1-254	250k
240573CR	3299Y-1-102	1k	240661CR	3299Y-1-504	500k
240581CR	3299Y-1-202	2k	240670CR	3299Y-1-105	1M
240590CR	3299Y-1-502	5k	240688CR	3299Y-1-205	2M

### Corporate Customers

Opening an account is easy!! Call 1-800-831-4242 for details today.

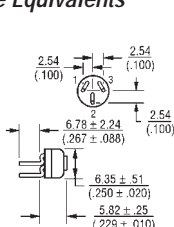
# Potentiometers – Single-Turn Cermet and Trimming

Color Code Legend  
New Sale Qty. Save

## 1/2-Watt, 1/4" Round, Cermet Potentiometers Top Adjustment (±10%)

### 3329P Series Value Equivalents

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- TO-5 grid
- Terminals: solderable pins



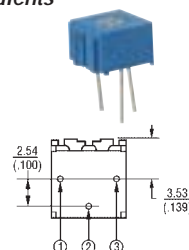
Qty.	1	10	50	100
Price	\$1.70	\$1.53	\$1.29	\$1.21

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
254457CR	3329P-500	50	254537CR	3329P-203	20k
254465CR	3329P-101	100	254545CR	3329P-253	25k
254473CR	3329P-201	200	254553CR	3329P-503	50k
254481CR	3329P-501	500	254561CR	3329P-104	100k
254490CR	3329P-102	1k	254570CR	3329P-204	200k
254502CR	3329P-202	2k	254588CR	3329P-504	500k
254511CR	3329P-502	5k	254596CR	3329P-105	1M
254529CR	3329P-103	10k			

## 1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Top Adjustment (±10%)

### 3362P Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)



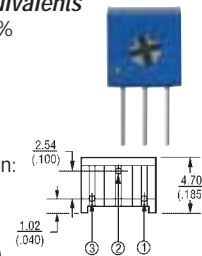
Qty.	1	10	50	100
Price	\$0.59	\$0.55	\$0.45	\$0.42

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
253964CR	3362P-101	100	254001CR	3362P-203	20k
253972CR	3362P-201	200	254019CR	3362P-253	25k
254078CR	3362P-501	500	254027CR	3362P-503	50k
253981CR	3362P-102	1k	254035CR	3362P-104	100k
253999CR	3362P-202	2k	254107CR	3362P-204	200k
254086CR	3362P-502	5k	254043CR	3362P-504	500k
254094CR	3362P-103	10k	254115CR	3362P-105	1M

## 1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Side Adjustment (±10%)

### 3362W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)



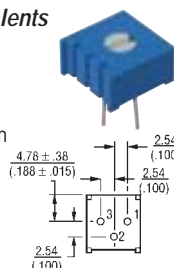
Qty.	1	10	50	100
Price	\$0.60	\$0.54	\$0.45	\$0.41

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
254140CR	3362W-101	100	254211CR	3362W-203	20k
254158CR	3362W-201	200	254220CR	3362W-253	25k
254166CR	3362W-501	500	254238CR	3362W-503	50k
254174CR	3362W-102	1k	254246CR	3362W-104	100k
254182CR	3362W-202	2k	254254CR	3362W-204	200k
254191CR	3362W-502	5k	254262CR	3362W-504	500k
254203CR	3362W-103	10k	254271CR	3362W-105	1M

## 1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Top Adjustment (±10%)

### 3386P Series Value Equivalents

- Resistance tolerance: ±10%
- Absolute minimum resistance: 2Ω maximum
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V maximum)



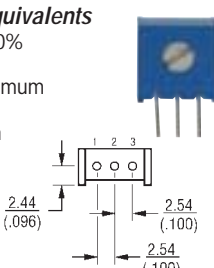
Qty.	1	10	50	100
Price	\$0.85	\$0.76	\$0.67	\$0.64

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
254289CR	3386P-500	50	254377CR	3386P-253	25k
254297CR	3386P-101	100	254385CR	3386P-503	50k
254300CR	3386P-201	200	254393CR	3386P-104	100k
254318CR	3386P-501	500	254406CR	3386P-204	200k
254326CR	3386P-102	1k	254414CR	3386P-254	250k
254334CR	3386P-202	2k	254422CR	3386P-504	500k
254342CR	3386P-502	5k	254431CR	3386P-105	1M
254351CR	3386P-103	10k	254449CR	3386P-205	2M
254369CR	3386P-203	20k			

## 1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)

### 3386W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Adjustment angle: 280° nominal



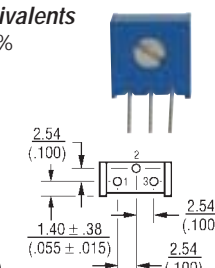
Qty.	1	10	50	100
Price	\$0.89	\$0.79	\$0.69	\$0.65

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
241381CR	3386W-500	50	241470CR	3386W-253	25k
241390CR	3386W-101	100	241488CR	3386W-503	50k
241402CR	3386W-201	200	241496CR	3386W-104	100k
241411CR	3386W-501	500	241509CR	3386W-204	200k
241429CR	3386W-102	1k	241517CR	3386W-254	250k
241437CR	3386W-202	2k	241525CR	3386W-504	500k
241445CR	3386W-502	5k	241533CR	3386W-105	1M
241453CR	3386W-103	10k	241541CR	3386W-205	2M
241461CR	3386W-203	20k			

## 1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)

### 3386X Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ min.
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V max.)



Qty.	1	10	50	100
Price	\$0.85	\$0.76	\$0.67	\$0.64

Part No.	Cross Ref. No.	Ohms	Part No.	Cross Ref. No.	Ohms
264604CR	3386X-500	50	264698CR	3386X-253	25k
264612CR	3386X-101	100	264701CR	3386X-503	50k
264621CR	3386X-201	200	264719CR	3386X-104	100k
264639CR	3386X-501	500	264727CR	3386X-204	200k
264647CR	3386X-102	1k	264735CR	3386X-254	250k
264655CR	3386X-202	2k	264743CR	3386X-504	500k
264663CR	3386X-502	5k	264751CR	3386X-105	1M
264671CR	3386X-103	10k	264760CR	3386X-205	2M
264680CR	3386X-203	20k			

## Current Sensing Transformers

### Class 1 Current Transformer

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC
- Size: 3.0"L x 3.2"W x 1.6"T
- Frequency: 50-60Hz
- Weight: 1.1 lbs.

Includes: Mounting bracket and hardware

Part No.	Mfr. Cross Ref. No.	Power	Ratio	1	10	100
174887CR	MSQ30	5VA	200A/5A: 5VA	\$4.49	\$4.04	\$3.64

SALE



### Current Sensing Transformer

- Inductance: 5mH
- Turns: 60
- Sensitivity current (I<sub>n</sub>): 1A
- Max. current: 300mA
- Freq. range: 10-50 kHz
- Sensitivity voltage (V<sub>out</sub>): 1V
- Terminating resistor: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T

Part No.	Mfr. Cross Ref. No.	1	10	100
164718CR	MTC30101	\$2.15	\$1.95	\$1.75

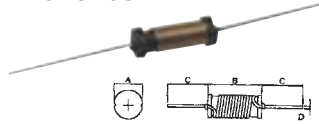




## Axial Leaded RF Chokes

### 4600 Series

- Inductive tolerance: 10%
- Operating temperature: -55°C to +125°C
- Size: A = 6.8mm max.; B = 19.0mm max.  
C = 25.0±2.0mm; D = 0.65±0.5mm



Part No.	Mfr. Cross Ref. No.	L (μH)	Q (min.)	Res. Freq Min. (MHz)	DCR Max. (μ)	Max. DC Current (mA)	Pricing		
							1	10	100
208063CR	4602	1.0	60	190	.050	2000	\$.69	\$.62	\$.55
208071CR	4604	1.5	58	149	.093	1800	.69	.62	.55
208080CR	4606	2.4	56	120	.190	1500	.69	.62	.55
208098CR	4608	3.9	60	93	.450	1000	.69	.62	.55
208101CR	4609	5.5	57	80	.670	850	.69	.62	.55
208119CR	4610	6.2	57	76	.830	700	.69	.62	.55
208127CR	4611	8.2	57	65	1.2	600	.69	.62	.55
208135CR	4612	10	36	61	1.5	500	.69	.62	.55

## NTC Thermistors

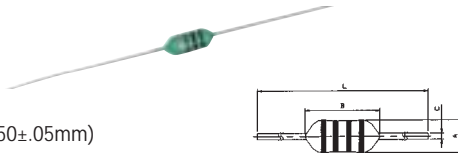
- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temperature range: -30°C ~ +130°C
- Maximum allowable power (@ 250°C): 0.55W
- Thermal dissipation factor: 6.5mW/OC (@ 250°C)
- Resistance value allowable difference: 10%



Part No.	Mfr. Cross Ref. No.	Resistance (Ω @ 25°C)	B Constant (25/50°C >10%)	Temp. Coef. @ 25°C (%/°C)	Pricing			
					1	10	100	500
207520CR	NTC-101	100	3100	-3.5	\$.59	\$.49	\$.39	\$.32
207511CR	NTC-201	200	3100	-3.5	\$.59	\$.49	\$.40	\$.30
207503CR	NTC-301	300	3100	-3.5	\$.59	\$.49	\$.39	\$.32
207491CR	NTC-501	500	3100	-3.5	\$.59	\$.49	\$.39	\$.32
207482CR	NTC-102	1k	3800	-4.3	\$.59	\$.49	\$.39	\$.32
207474CR	NTC-202	2k	3800	-4.3	\$.59	\$.49	\$.39	\$.32
207466CR	NTC-302	3k	3900	-4.4	\$.59	\$.49	\$.39	\$.32
207458CR	NTC-402	4k	3900	-4.4	\$.59	\$.49	\$.39	\$.32
207440CR	NTC-502	5k	3900	-4.4	\$.59	\$.49	\$.39	\$.32
207036CR	NTC-103	10k	4100	-4.6	\$.59	\$.49	\$.39	\$.32
207028CR	NTC-153	15k	4100	-4.6	\$.59	\$.49	\$.40	\$.30
207010CR	NTC-203	20k	4200	-4.7	\$.59	\$.49	\$.39	\$.32
207001CR	NTC-503	50k	4200	-4.7	\$.59	\$.49	\$.39	\$.32
206990CR	NTC-104	100k	4400	-4.9	\$.59	\$.49	\$.39	\$.32
206981CR	NTC-204	200k	4500	-5.1	\$.59	\$.49	\$.39	\$.32

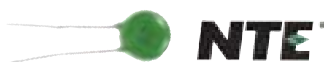
## Epoxy Conformal Coated Chokes

- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max.  
B = 7.0mm max.  
C = 0.48±0.5mm  
(except P/N 208143CR: 0.50±.05mm)  
D = 63±3mm



Part No.	L (μH)	Q (min.)	Test. Freq (MHz)	Res. Freq Min. (MHz)	DCR Max. (μ)	Max. DC Curr. (mA)	Pricing		
							1	10	100
208143CR	10	60	7.96	28.7	1.56	670	\$.49	\$.45	\$.39
208151CR	27	50	2.52	10.2	2.39	410	.49	.44	\$.33
208160CR	33	50	2.52	8.4	2.71	380	.49	.45	.39
208178CR	47	50	2.52	6.9	3.3	330	.49	.45	.39
208186CR	82	45	2.52	5.4	4.62	240	.49	.44	.33
208194CR	100	45	2.52	5.0	4.98	240	.49	.45	.39
208207CR	220	45	0.796	3.3	9.23	180	.49	.45	.39
208215CR	330	45	0.796	2.7	13.2	140	.49	.44	\$.33
208223CR	470	45	0.796	2.2	21.4	120	.49	.45	.39
208231CR	820	45	0.796	1.7	28.4	90	.49	.44	\$.33
208240CR	1000	45	0.796	1.5	31.3	80	.49	.45	.39

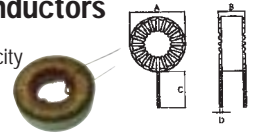
For more NTE Varistors  
see page 43.



## High Current Toroid Inductors

### 5700 Series

- Low radiation • Low core loss • High current capacity
- Size: A = 22.2mm max.; B = 11.09mm max.  
C = 15.0±1.0mm; D = 1.2±0.5mm
- See page 155 for EMI suppression cores
- See technical datasheets on [www.jameco.com](http://www.jameco.com) for complete specifications



Part No.	Mfr. Cross Ref. No.	L (μH)	IDC max. (A)	L min. @ IDC	Pricing				
					1	10	25	50	100
208258CR	5701	10	11.0	5	\$3.99	\$3.05	\$2.74	\$2.26	\$2.06
208266CR	5702	25	5.5	12	3.99	3.05	2.74	2.26	2.06
208311CR	5711	50	9.5	25	4.95	4.46	3.79	3.03	2.27
208303CR	5707	75	5.0	40	4.32	3.75	3.37	2.78	2.53
208274CR	5703	125	2.75	70	3.99	3.05	2.74	2.26	2.06
208320CR	5712	150	4.75	85	4.93	3.75	3.37	2.78	2.53
208282CR	5704	275	2.0	150	3.99	3.05	2.74	2.26	2.06
208291CR	5705	450	1.5	250	4.32	3.28	2.95	2.44	2.21

## Varistors

### LA Series Varistors (Radial Lead)

- AC power line applications • Power supplies • High energy absorption
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"




LA Series		Size	Max. Ratings (+85°C)			Characteristics at 25°C		Pricing			
			Continuous RMS Volt.	DC Volt.	Transient Energy (10/1000μs)	Max Clamping Volt. @ I <sub>PK</sub> Value Curr. (8/20μs)					
Part No.	Mfr. Cross Ref. No.	Disc. Dia. (mm)	V <sub>m(ac)</sub> Volts	V <sub>m(dc)</sub> Volts	W <sub>tm</sub> Joules	V Volts	I <sub>PK</sub> =2.0A Amps	1	10	100	500
34446CR	V130LA10A	14	130	175	38	340	50	\$.29	\$.25	\$.22	\$.20
34471CR	V250LA20A	14	250	330	72	650	50	.39	.35	.32	.30
34462CR	V130LA20A	20	130	175	70	340	100	.59	.56	.54	.52

### ZA Series Varistor (Radial Lead)

- Low DC voltage applications • Printed circuit board designs
- UL recognized as "transient voltage surge suppressors" • Low transient energy
- Used for highly sensitive devices • Computer equipment • Alarm systems

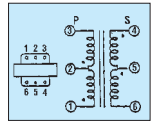


ZA Series		Size	Characteristics at 25°C								
			Varistor Voltage		Max. Clamping Volt.						
			@ 1 mA DC Test Current		@ I <sub>PK</sub> Value Curr. (8/20μs)						
			Disc.								
Part No.	Mfr. Cross Ref. No.	Dia. (mm)	Min. Volts	V <sub>N(dc)</sub> Volts	Max. Volts	V Volts	I <sub>PK</sub> =2.0A Amps	Pricing			
			1	10	100	500					
190449CR	V18ZA1	7	16.0	18.0	20.0	35	2.5	\$ .21	\$ .17	\$ .15	\$ .13

## Coupling Transformers

### Modem Coupling Transformers

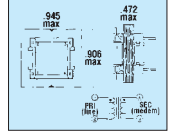
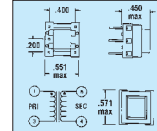
- Insulation resistance: 100MΩ
- Core type: EI-14
- Vacuum wax impregnated
- Hipot tested: 1000VAC
- ±20% impedance matching
- ±20% DC resistance matching



Part Number	Mfr. Cross Ref. No.	Impedance (Ω)		Resistance (Ω)		Pricing		
		Primary	Secondary	Primary	Secondary	1	10	100
125356CR	XFR6006A14	600CT	600CT	65	55	\$1.29	\$1.18	\$1.08
205962CR	60-282-0	1.2KCT	8	45	1.5	1.69	1.45	1.09

### Modem Coupling Transformers

141621CR



- Dielectric strength: 1250VAC
- Insertion Loss: 141621: 1.25dB@1kHz; 117760: 2.50dB@1kHz

Part Number	Mfr. Cross Ref. No.	Impedance (Ω)		Resistance (Ω)		Pricing		
		Primary	Secondary	Primary	Secondary	1	10	100
141621CR	671-8255	600	600	46.5	67.6	\$1.95	\$1.66	\$.1.25
117760CR	671-8014	600	600	108	120	1.99	1.69	1.27

## Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer Positive Temperature Coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality and performance. As PPTC fuses are resettable, warranty costs and service calls are largely avoided.

### RA Series

- Rated voltage: ( $V_{MAX}$ , V): 60
- Max. current: ( $I_{MAX}$ , A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.1mm (min.)

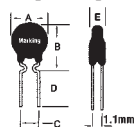


Fig. 1

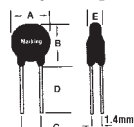


Fig. 2

### RB Series

- Rated voltage: ( $V_{MAX}$ , V): 30
- Max. current: ( $I_{MAX}$ , A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.0mm (min.)

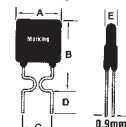


Fig. 3

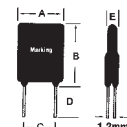


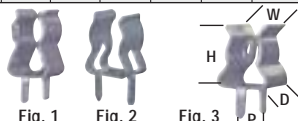
Fig. 4

Part No.	Mfr. Cross Ref. No.	Hold Curr. ( $I_H$ , A)	Trip Curr. ( $I_T$ , A)	Fig.	Size (mm)			Pricing			
					A	B	C	1	10	100	500
199814CR	RA010-60	0.10	0.20	1	7.4	12.7	5.1	.43	.41	.39	.31
199822CR	RA017-60	0.17	0.34	1	7.4	12.7	5.1	.43	.39	.35	.31
199831CR	RA020-60	0.20	0.40	1	7.4	12.2	5.1	.43	.41	.39	.31
199849CR	RA025-60	0.25	0.50	1	7.4	12.7	5.1	.43	.41	.39	.31
199857CR	RA030-60	0.30	0.60	1	7.4	13.0	5.1	.43	.41	.39	.31
199865CR	RA040-60	0.40	0.80	1	7.6	13.5	5.1	.47	.44	.41	.31
199873CR	RA050-60	0.50	1.00	1	7.9	13.7	5.1	.49	.46	.43	.32
199881CR	RA065-60	0.65	1.30	1	9.7	14.5	5.1	.50	.47	.43	.34
199890CR	RA075-60	0.75	1.50	1	10.4	15.2	5.1	.50	.47	.43	.34
199902CR	RA090-60	0.90	1.80	1	11.7	15.8	5.1	.52	.49	.45	.30
199911CR	RA110-60	1.10	2.20	2	13.0	18.0	5.1	.57	.55	.52	.40
199929CR	RA135-60	1.35	2.70	2	14.5	19.6	5.1	.58	.56	.53	.41
199937CR	RA160-60	1.60	3.20	2	16.3	21.3	5.1	.60	.57	.54	.42
199945CR	RA185-60	1.85	3.70	2	17.8	22.9	5.1	.59	.55	.45	.39
199953CR	RA250-60	2.50	5.00	2	21.3	26.4	10.2	.70	.63	.57	.49
199961CR	RA300-60	3.00	6.00	2	24.9	30.0	10.2	.74	.67	.60	.50
199970CR	RA375-60	3.75	7.50	2	28.5	33.5	10.2	.74	.67	.53	.40

## Fuse Clips

- Low contact resistance
- Low profile
- Withstands shock and vibration

Prepackaged: order in increments of 10, 100 or 1000



Part No.	Description	Fig.	Size (H" x W" x D" x P")	10	100	1000
102859CR	5mm, front leads	1	.37 x .25 x .21 x .19	.12	.09	.05
119280CR	5mm, side leads	2	.33 x .25 x .20 x .21	.09	.08	.07
102841CR	1/4", front leads (10A)	3	.32 x .27 x .25 x .23	.09	.08	.07
220732CR	5mm, front leads (10A)	3	.33 x .27 x .25 x .29	.15	.10	.07

## 1/4" x 1/4" Standard Fuses

### Fast Acting Fuses (250V) AGC/3AG Fuses

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	10	100	1000
69403CR	250mA	Various	.20	.18	.16
10410CR	500mA	Various	.20	.18	.16
197510CR	630mA	Various	.20	.18	.16
10372CR	1 amp	Various	.20	.12	.11
197528CR	1.6 amp	Various	.20	.12	.11
10381CR	2 amp	Various	.20	.12	.11
197536CR	2.5 amp	Various	.21	.12	.09
69438CR	3 amp	Various	.20	.12	.11
197544CR	4 amp	Various	.22	.20	.18
10401CR	5 amp	Various	.22	.20	.18
197552CR	6.3 amp	Various	.22	.20	.18
69462CR	10 amp	Various	.25	.22	.20
186301CR	16 amp	Various	.25	.22	.20

### Slow Blow Fuses (250V) MDL/3AG Fuses

Part No.	Amps	Mfr.	1	10	100	1000
25654CR	250mA	Various	.74	.59	.50	.40
25689CR	500mA	Various	.71	.59	.50	.37
25638CR	1 amp	Various	.71	.59	.50	.37
25646CR	2 amp	Various	.54	.43	.39	.28
69534CR	3 amp	Various	.54	.44	.34	.28
25671CR	5 amp	Various	.54	.44	.34	.28
69569CR	10 amp	Various	.74	.65	.51	.40

## 5mm x 20mm Miniature Fuses

### Fast Acting Fuses (250V) GMA Fuses

- Recommended for new designs
- Prepackaged: order in increments of 10, 100, 500 or 1000

Part No.	Amps	Mfr.	10	100	500	1000
103886CR	250mA	Various	.20	.15	.11	.10
102040CR	500mA	Various	.20	.15	.11	.10
103907CR	1 amp	Various	.20	.15	.11	.10
103915CR	2 amp	Various	.20	.15	.11	.10
103923CR	3 amp	Various	.20	.15	.11	.10
103931CR	5 amp	Various	.20	.15	.11	.10

### Slow Blow Fuses (250V) GMA Fuses

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	10	100	1000
197501CR	500mA	Various	.29	.26	.23
197464CR	1 amp	Various	.29	.25	.19
197472CR	2 amp	Various	.35	.32	.29
197481CR	3.15 amp	Various	.35	.32	.29
197499CR	5 amp	Various	.35	.32	.29

For NTE Thermal Fuses see page 43.

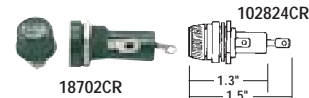
**NTE**



## Panel Mount Fuse Holders

### 1/4" x 1/4" Standard Thumbscrew Cap

- Straight solder terminal; 10A @ 250VAC



Part No.	Approvals	Size	Mounting Hole	1	10	100	1000
120993CR	—	1.95"L x .71"Dia.	.58"Dia. (Double D-style)	.79	.69	.55	.49
18702CR	UL/CSA	2.05"L x .71"Dia.	.58"Dia. x .52"Flat (D-style)	1.59	1.35	1.15	.99

### 5mm x 20mm Miniature Thumbscrew Cap

- Straight solder terminal; Size: 1.5"L x 0.6"Dia.

Part No.	Approvals	Current	Mounting Hole	1	10	100	1000
150463CR	—	6A @ 250VAC	.50"Dia. x .43"Flat	.99	.86	.75	.57
102824CR	UL/CSA	10A @ 250VAC	.50"Dia.	.99	.85	.72	.59

## In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783CR orange



### 1/4" x 1/4" Standard

Part No.	AWG	Wire Lgths	Body Size(L)	Body Color	1	10	100
109321CR	22	3.5/3"	2.4"	Black	.65	.58	.52
102867CR	20	3/3"	2.2"	White	.65	.58	.48
151917CR	18	6/6"	2.4"	White	.99	.85	.65
108783CR	16	21/26"	2.2"	Black	.99	.87	.68
108791CR	14	19/25"	2.5"	Black	1.59	1.45	1.05

### 5mm x 20mm Miniature

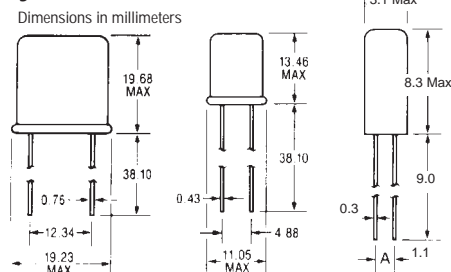
Part No.	AWG	Wire Color	Body Size (L)	1	10	100
109330CR	20	Red	1.8"	.69	.56	.45

## 5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D-style mounting hole: 1 ea. 0.5"Dia x .46" flat

Part No.	Description	1	10	100
102832CR	Fuse holder UL/CSA	\$1.95	\$1.79	\$1.59

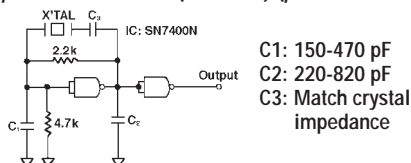
## Crystals



HC33/U Case HC49/U (HC18/U) Case TF Case

- Frequency calibration tolerance:  $\pm 50\text{ppm}$  @  $25^\circ\text{C}$
- Operating temperature:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Drive level: 4.0 mW maximum
- Frequency stability tolerance:  $\pm 50\text{ ppm}$  from  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Shunt capacitance: 7pF maximum

### Application Reference (4-14MHz) (parallel resonance)



C1: 150-470 pF  
C2: 220-820 pF  
C3: Match crystal impedance

### HC33/U Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	Pricing			
					1	10	100	1000
14349CR	CY1	1.0	13pF	MC6800/6808/6809E/6500 series	\$4.95	\$4.49	\$3.95	\$3.49

### HC49/U (HC18/U) Case

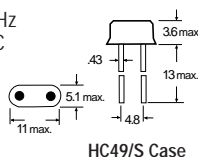
Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	1	10	100	1000
102613CR	CY1.843	1.8432	18pF	MC14411/MC6802	\$ .99	\$ .72	\$ .51	\$ .39
102621CR	CY2.0	2.0	Series	2650/F-8	.81	.73	.66	.55
101274CR	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	.99	.89	.75	.69
14525CR	CY3.27	3.2768	18pF	IM6100C/CDP1802/CDP1804	.99	.89	.79	.69
14533CR	CY3.57	3.579545	18pF	MC6801,2,3/MM5369	.59	.54	.42	.39
14568CR	CY3.68	3.6864	18pF	8748/8035-8	.89	.79	.69	.59
14592CR	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.59	.54	.41	.39
14621CR	CY4.91	4.9152	Series	CDP1802C/1804/1804C	.89	.79	.69	.59
14681CR	CY6	6.0	18pF	MCS-48/IM8048	.79	.70	.59	.40
14699CR	CY6.14	6.144	30pF	MCS-85/8085	.37	.34	.30	.25
14710CR	CY7.37	7.3728	30pF	8051/8031	.89	.80	.65	.45
14728CR	CY8	8.0	Series	IM6100A/MC68B09	.89	.79	.69	.54
14381CR	CY10	10.0	Series	MCS-85/8085A-2	.79	.69	.59	.49
120061CR	CY11.05	11.0592	Series	General purpose	.89	.79	.69	.59
14402CR	CY12	12.0	Series	MCS-86/8086/8284/8202	.89	.75	.55	.39
14453CR	CY16	16.0	Series	8080/8224/general purpose	.62	.56	.50	.44
14517CR	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69	.59	.39

### TF Case

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Impedance	Microprocessor	1	10	100	1000
14584CR	CY32.76	32.768kHz	10.5pF	Tuning fork	\$ .89	\$ .79	\$ .69	\$ .59

## Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$
- Drive level: 0.5mW (fundamental frequency)
- Aging:  $\pm 5\text{ppm/year}$  maximum
- Frequency stability tolerance:  $\pm 50\text{ppm}$



HC49/S Case

### HC49/S Case (Low Profile)

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Imped.	Max. Resist.	Microprocessor	Pricing			
						1	10	100	1000
137816CR	CY3.57LP	3.579545	17pF	150Ω	MC6801, 2, 3/MM5369	\$ .95	\$ .86	\$ .68	\$ .51
137832CR	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	.99	.89	.79	.69
137859CR	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.75	.67	.59	.53
137875CR	CY11.05LP	11.0592	Series	50Ω	General purpose	1.05	.81	.66	.52
137891CR	CY16LP	16.000	Series	40Ω	8080/8224/general purpose	.39	.36	.29	.27

## Crystals vs. Crystal Oscillators – Which is Right?

When designing a digital circuit, engineers must often consider what type of oscillator is most appropriate. Designs could incorporate a discrete crystal with accompanying RC resonator and driver. Alternatively, one might employ an integrated TTL oscillator.

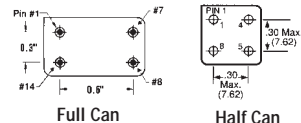
While the decision to choose one over the other can seem complicated, just a few considerations solve most common situations.

- Does circuit require a TTL compatible clock?  
**Yes:** Use the TTL Oscillator.
- Are you capable of designing the appropriate series or parallel resonant circuit required for your circuit and frequency?  
**Yes:** Design around crystals for the appropriate signal type.
- Can you easily condition a TTL signal?  
**Yes:** Design signal translator around oscillator.  
**No:** Hire help!

**Practical Practices**  
Money Saving Tips for the Engineer

## TTL Crystal Oscillators

- Specifications:
- Input voltage:  $+5\text{VDC} \pm 0.5\text{VDC}$
  - OSC series oscillators fit into a 14-pin DIP socket P/N 133006CR, right
  - Frequency stability  $\pm 100\text{ppm}$
  - Operating temperature:  $0^\circ\text{C}$  to  $70^\circ\text{C}$



Pin #	Function
1	N/C
7	GND
8	Output
14	+5VDC

Full Can

Pin #	Function
1	N/C
4	GND
5	Output
8	+5VDC

Half Can

## 14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting



Part No.	Description	1	10	100	1000
133006CR	Oscillator socket .....	\$ .55	\$ .46	\$ .34	\$ .31

Part No.	Mfr. Cross Ref. No.	Frequency (MHz)	Size	Max Input Current	Rise Fall Time	Input Current	Pricing			
							1	10	100	1000
27861CR	OSC1	1.0	Full	7mA	15ns	45mA	\$2.75	\$2.45	\$1.59	\$1.39
27879CR	OSC1.84	1.8432	Full	7mA	15ns	45mA	2.39	2.15	1.75	1.29
27924CR	OSC2	2.0	Full	7mA	15ns	30mA	1.99	1.79	1.59	1.39
27967CR	OSC4	4.0	Full	7mA	10ns	50mA	1.99	1.79	1.59	1.39
27991CR	OSC8	8.0	Full	15mA	15ns	30mA	1.99	1.79	1.59	1.39
27887CR	OSC10	10.0	Full	15mA	10ns	20mA	1.99	1.79	1.59	1.39
102779CR	OSC10H	10.0	Half	45mA	6ns	30mA	1.45	1.05	.96	.79
144207CR	OSC11.05	11.059	Full	50mA	10ns	30mA	1.35	1.19	.95	.89
27895CR	OSC12	12.0	Full	15mA	10ns	50mA	1.99	1.79	1.49	1.05
108652CR	OSC14.31	14.31818	Full	15mA	10ns	50mA	1.99	1.79	1.45	1.09
27908CR	OSC16	16.0	Full	15mA	10ns	50mA	1.59	1.45	1.15	.85
27932CR	OSC20	20.0	Full	17mA	10ns	20mA	1.79	1.59	1.45	1.29
27941CR	OSC32	32.0	Full	18mA	7ns	15mA	1.59	1.45	1.15	.85
76822CR	OSC33	33.0	Full	18mA	6ns	15mA	1.99	1.79	1.43	1.07
153226CR	OSC40	40.0	Full	18mA	6ns	15mA	\$4.79	1.25	1.13	1.02
76831CR	OSC50	50.0	Full	25mA	6ns	25mA	1.99	1.79	1.43	1.07
76857CR	OSC100	100.0	Full	25mA	3ns	90mA	2.49	2.25	1.95	1.75





## Belden Coaxial Cables

New Lower  
Prices

Compare Belden coaxial cables with the other companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden coaxial cables are time-tested for performance. Performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden coaxial cable can be counted on for positive, reliable, and trouble-free operation. Engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, and more. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).

## 50Ω Transmission and Computer Cable RG8/U Type

## 16 AWG stranded (19x29) .058" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 81.4pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .042" • Color: black - 10

Part No.	Product No.	Description	1	5	10
234254CR	9258-100-10	100' reel	\$55.79	\$46.88	\$44.54
234256CR	9258-500-10	500' reel	205.99	168.99	159.99
234255CR	9258-1000-10	1000' reel	406.79	386.45	367.13
234258CR	9258-U500-10	500' unreel box	205.99	168.99	159.99
234257CR	9258-U1000-10	1000' unreel box	406.79	386.45	367.13

## 13 AWG stranded (7 x 21) .085" bare copper

- 97% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 52Ω
- Nominal outer diameter: .405" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232848CR	8237-100-10	100' reel	\$114.39	\$103.98	\$95.32
232856CR	8237-500-10	500' reel	397.75	361.54	331.44
232864CR	8237-1000-10	1000' reel	697.19	639.18	589.97

## 11 AWG stranded (7 x 19) .108" bare copper

- 97% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 85.3pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .285" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232750CR	8214-100-10	100' reel	\$99.99	\$94.67	\$86.80
232768CR	8214-500-10	500' reel	523.45	475.83	436.21
232776CR	8214-1000-10	1000' reel	829.15	760.10	701.58

## 50Ω Transmission and Computer Cable RG58A/U Type

## 20 AWG solid .032" bare copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 51.5Ω
- Nominal outer diameter: .193" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232872CR	8240-100-10	100' reel	\$39.99	\$36.39	\$33.06
232881CR	8240-500-10	500' reel	137.79	124.99	113.59
232899CR	8240-1000-10	1000' reel	250.49	229.70	212.02
234175CR	8240-U500-10	500' unreel box	109.99	90.99	90.39
234174CR	8240-U1000-10	1000' unreel box	219.99	181.99	180.77

## 20 AWG stranded (19 x 33) .035" tinned copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .192" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232936CR	8259-100-10	100' reel	\$44.79	\$40.64	\$36.93
232944CR	8259-500-10	500' reel	126.59	115.08	105.51
232952CR	8259-1000-10	1000' reel	261.15	237.29	221.43

## 20 AWG stranded (19 x 32) .037" tinned copper

- 96% tinned copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 86.9pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .194" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232813CR	8219-100-10	100' reel	\$35.99	\$34.30	\$31.90
232821CR	8219-500-10	500' reel	144.29	137.09	130.24
232830CR	8219-1000-10	1000' reel	299.99	286.18	265.47

## 50Ω Transmission and Computer Cable RG174/U Type

## 26 AWG stranded (7 x 34) .019" bare copper-covered steel

- 90% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .110" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232784CR	8216-100-10	100' reel	\$35.45	\$32.18	\$29.23
232792CR	8216-500-10	500' reel	114.19	103.64	94.16
232805CR	8216-1000-10	1000' reel	215.99	203.97	193.77

## 75Ω Broadband Coax CATV Cable RG6/U Type

## 18 AWG solid .040" bare copper-covered steel

- DuoBond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .270" • Color: black - 10

Part No.	Product No.	Description	1	5	10
233269CR	9116-100-10	100' reel	\$20.89	\$17.56	\$16.68
233277CR	9116-500-10	500' reel	57.19	50.07	47.57
233285CR	9116-1000-10	1000' reel	102.55	97.43	92.56

## 18 AWG solid .040" bare copper-covered steel

- DuoBond® IV quad shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .298" • Color: black - 10

Part No.	Product No.	Description	1	5	10
232733CR	1189A-100-10	100' reel	\$23.99	\$20.14	\$18.13
233402CR	1189A-500-10	500' reel	83.99	67.87	64.48
232741CR	1189A-1000-10	1000' reel	152.55	144.93	137.68
234052CR	1189A-U500-10	500' unreel box	83.99	67.87	64.48

## Precision Video Cable for Analog and Digital RG6 Type

## 18 AWG solid .040" bare copper

- DuoFoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation, PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .275" • Color: black - 10

Part No.	Product No.	Description	1	5	10
234099CR	1694A-100-10	100' reel	\$66.49	\$55.86	\$53.07
234155CR	1694A-500-10	500' reel	199.99	162.90	150.90
234154CR	1694A-1000-10	1000' reel	403.75	327.78	303.80

## Direct Broadcast Satellite RG6 Type Cable

## 18 AWG solid .040" bare copper

- DuoBond® II +60% aluminum braid
- Gas injected foam polyethylene insulation, PVC jacket
- Nominal capacitance: 16.2pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .270"

Part No.	Product No.	Description	1	5	10
234156CR	1829AC-100-10	100' reel	\$14.99	\$13.99	\$12.99
234177CR	1829AC-500-10	500' reel	54.99	52.24	49.63
234157CR	1829AC-1000-10	1000' reel	106.99	96.29	91.48

## Composite Data, Audio, Video, Security and Control Cable

## Two RG6 18 AWG solid bare copper conductor and two 4-pair UTP 24 AWG solid bare copper conductor

- Banana Peel™ jacketless cables
- Gas injected FPR insulation coax cable, polyolefin insulation CAT5e cable and F-R PVC jackets
- Component nominal outer diameter: .200"

Part No.	Product No.	Description	1	5	10
234163CR	7913S-500	500' reel	\$242.99	\$229.99	\$219.99
234162CR	7913S-1000	1000' reel	461.79	449.43	437.08



## Belden Coaxial Cables (Continued)

## 75Ω Standard Analog Video Cable RG59/U Type

## 23 AWG solid .023" bare copper

- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .242" • Color: black – 10



Part No.	Product No.	Description	1	5	10
232901CR	8241-100-10	100' reel	\$44.39	\$39.90	\$36.60
232910CR	8241-500-10	500' reel	125.19	113.62	103.17
232928CR	8241-1000-10	1000' reel	224.15	205.77	189.67

## 22 AWG stranded (7 x 30) .030" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 56.7pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .241" • Color: black – 10



Part No.	Product No.	Description	1	5	10
232653CR	9259-100-10	100' reel	\$50.25	\$40.63	\$39.12
232661CR	9259-500-10	500' reel	135.85	123.44	120.99
232670CR	9259-1000-10	1000' reel	264.49	254.99	241.89
234070CR	9259-U500-10	500' unreel box	135.85	123.44	120.99
234069CR	9259-U1000-10	1000' unreel box	264.49	254.99	241.89

## RG59 Type Security Coaxial Cable

## 20 AWG solid bare copper conductor

- 95% bare copper braid shield
- Nominal impedance: 75Ω
- Foam polyolefin insulation and black UV resistant PVC jacket
- Impregnated with CoreGuard® flame retardant flooding compound
- Shielded or flooded for use in underground ducts
- Surveillance and CCTV applications • Color: black – 10



Part No.	Product No.	Description	1	5	10
234158CR	543945-100-10	100' reel	\$13.85	\$13.18	\$12.51
234160CR	543945-500-10	500' reel	64.95	61.98	58.92
234159CR	543945-1000-10	1000' reel	129.99	107.49	101.49

## Standard Analog Video Cable 75Ω Miniature Coax

## 27 AWG stranded (7x35) .017" bare copper-covered steel

- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .100" • Color: black – 10



Part No.	Product No.	Description	1	5	10
234173CR	8218-U500-10	500' unreel box	\$175.85	\$159.56	\$144.99
234172CR	8218-U1000-10	1000' unreel box	363.95	330.20	313.69

## Broadband Coax (Headend/Video Cables)

## 20 AWG solid .031" bare copper

- 98% tinned copper double braid shield
- Polyethylene insulation and jacket
- Nominal capacitance 68.9pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .305" • Color: black – 10



Part No.	Product No.	Description	1	5	10
232961CR	8281-100-10	100' reel	\$85.49	\$72.06	\$68.46
232979CR	8281-500-10	500' reel	349.99	299.99	269.75
232987CR	8281-1000-10	1000' reel	656.49	559.99	535.49

## 20 AWG solid .032" solid bare copper

- Duofoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation and PVC jacket
- Nominal capacitance: 53.5pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .234" • Color: black – 10



Part No.	Product No.	Description	1	5	10
234086CR	1505A-100-10	100' reel	\$51.05	\$42.89	\$40.75
234088CR	1505A-500-10	500' reel	172.49	140.49	139.99
234087CR	1505A-1000-10	1000' reel	339.99	280.99	279.75



## Belden Speaker Cables

These speaker cables are used to connect receivers or power amplifiers to speakers and are also used for the internal wiring of the speakers. All Belden speaker cables utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115.

## Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables

- 2-conductor stranded
- ETP high conductivity copper
- Parallel (1) tinned (1) bare
- PVC insulation • Clear PVC jacket – 368



## 18 AWG Stranded (16 x 30)

Part No.	Product No.	Description	1	5	10
232573CR	9708-100-368	100' reel	\$32.59	\$29.48	\$26.79
232581CR	9708-500-368	500' reel	119.85	113.82	107.51
232590CR	9708-1000-368	1000' reel	227.59	214.99	202.33
234153CR	9708-U500-368	500' unreel box	119.49	113.22	106.98
234080CR	9708-U1000-368	1000' unreel box	227.59	213.79	202.33

## 14 AWG Stranded (19 x 27)

232602CR	9717-100-368	100' reel	\$65.49	\$55.09	\$49.45
233429CR	9717-500-368	500' reel	255.69	242.25	218.04
232611CR	9717-1000-368	1000' reel	459.29	433.66	390.41

## 12 AWG Stranded (65 x 30)

232629CR	9718-100-368	100' reel	\$126.35	\$106.13	\$100.82
232637CR	9718-500-368	500' reel	405.25	358.42	310.77
232645CR	9718-1000-368	1000' reel	849.99	799.99	749.99



## Belden Hook-up Wire

## UL AWM Style 1007

Belden hook-up and lead wire products are manufactured in a variety of materials, sizes, and designs to meet rigid industry and government specifications. Used in a wealth of applications including inter-connection circuits, internal wiring of computer and data processing equipment, appliances, and automotive. AWM, or Appliance Wiring Material, is Underwriter Laboratories' recognized covering of insulated wires and cables intended for internal wiring of appliances and equipment.

- Tinned copper • PVC insulated
- Rated 105°C, 300V; 600V peak for electronic circuits and electrical equipment
- Increments of 100' reels



Use the color code chart below to replace the "xx" when ordering

01 – Brown	02 – Red	03 – Orange	04 – Yellow	05 – Green
07 – Violet	08 – Gray	09 – White	10 – Black	13 – Dark blue

e.g. 234601CR – 2346 is the Jameco designation for 28 AWG stranded wire and 01 is for color brown

Part No.	Product No.	Description	1	5	10
2346xxCX	9928-100-xx	28 AWG (7 x 36) stranded	\$11.45	\$9.35	\$8.62
2345xxCX	9926-100-xx	26 AWG (7 x 34) stranded	12.29	11.13	10.10
2344xxCX	9923-100-xx	24 AWG (7 x 32) stranded	12.89	11.72	10.61
2343xxCX	9921-100-xx	22 AWG (7 x 30) stranded	14.79	13.51	12.26
2342xxCX	9919-100-xx	20 AWG (7 x 28) stranded	18.29	16.59	15.10
2341xxCX	9918-100-xx	18 AWG (16 x 30) stranded	20.39	19.19	16.79
2340xxCX	9916-100-xx	16 AWG (26 x 30) stranded	28.29	22.99	21.25



## Bus Bar Hook Up Wire

Made in accordance with the performance requirements of Federal Specifications QQ-W343G.

- Solid tinned copper, single conductor
- Nominal outer diameter: 24 AWG – .021"; 22 AWG – .026"; 20 AWG – .033"

Part No.	Product No.	Description	1	5	10
234168CR	8022-100	24 AWG, 100' reel	\$10.49	\$9.49	\$8.63
234169CR	8022-1000	24 AWG, 1000' reel	57.29	46.31	42.75
234166CR	8021-100	22 AWG, 100' reel	11.65	9.39	8.49
234167CR	8021-1000	22 AWG, 1000' reel	70.69	60.26	55.73
234164CR	8020-100	20 AWG, 100' reel	13.29	11.67	10.55
234165CR	8020-1000	20 AWG, 1000' reel	93.69	79.85	73.84



Belden cable products are manufactured in a variety of gauge sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including PVC, PLENUM and High-Temperature versions to meet the technical requirements of many different types of systems. Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than other multi-conductor cables. For our complete line of Belden products, please visit [www.Jameco.com/Belden](http://www.Jameco.com/Belden).

- Chrome PVC jacket • Tinned copper • Twisted pairs • Tinned copper drain wire • Overall 100% BELDFOIL® shield (for shielded cables)

### High-Temperature Control, Instrumentation Cables and Computer Cables

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Semi-rigid PVC insulation • Nominal DCR: 24Ω/m
- Nominal impedance: 75Ω • Color: chrome – 60



9501 Series



9502 Series			9503 Series			9504 Series		
Part No.	Product No.	No. of Pairs	Description	1	5	10		
232709CR	9501-100-60	1	100' reel .....	\$12.65	\$10.36	\$9.50		
232717CR	9501-500-60	1	500' reel .....	63.65	60.28	56.93		
232725CR	9501-1000-60	1	1000' reel .....	120.55	113.86	105.62		
234073CR	9501-U500-60	1	500' unreel box .....	63.65	60.28	56.93		
234072CR	9501-U1000-60	1	1000' unreel box ..	120.55	113.86	107.16		
232451CR	9502-100-60	2	100' reel .....	19.99	16.99	15.49		
232469CR	9502-500-60	2	500' reel .....	99.99	83.99	77.49		
232477CR	9502-1000-60	2	1000' reel .....	179.55	154.39	153.49		
234075CR	9502-U500-60	2	500' unreel box .....	99.99	83.99	77.49		
234074CR	9502-U1000-60	2	1000' unreel box ..	181.35	154.99	154.49		
232485CR	9503-100-60	3	100' reel .....	25.99	21.99	20.39		
232493CR	9503-500-60	3	500' reel .....	129.99	110.99	99.99		
232506CR	9503-1000-60	3	1000' reel .....	244.99	214.99	199.99		
234077CR	9503-U500-60	3	500' unreel box ....	129.99	110.99	99.99		
234076CR	9503-U1000-60	3	1000' unreel box ....	244.99	214.99	199.99		
232514CR	9504-100-60	4	100' reel .....	32.99	26.99	24.99		
232522CR	9504-500-60	4	500' reel .....	159.99	133.99	122.99		
232531CR	9504-1000-60	4	1000' reel .....	275.29	252.39	232.96		
232549CR	9505-100-60	5	100' reel .....	36.99	29.99	27.99		
232557CR	9505-500-60	5	500' reel .....	177.99	168.78	159.51		
232565CR	9505-1000-60	5	1000' reel .....	329.99	318.80	299.99		
234078CR	9505-U500-60	5	500' unreel box ....	179.99	151.99	139.99		
234079CR	9505-U1000-60	5	1000' unreel box ..	329.99	318.80	299.99		

### Low Capacitance Computer Cables

**24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire**

- Datalene® insulation, chrome PVC jacket
- Nominal DCR: 24Ω/m
- Nominal impedance: 100Ω
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234178CR	1419A-100-60	2	100' reel .....	\$23.45	\$21.49	\$19.53
234085CR	1419A-500-60	2	500' reel .....	93.79	85.97	78.10
234084CR	1419A-1000-60	2	1000' reel .....	158.49	157.93	138.65

### Audio, Control, and Instrumentation Cables Non-Plenum

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polypropylene insulation
- Paper wrap
- Black PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .138" • Color: black – 10



Part No.	Product No.	No. of Pairs	Description	1	5	10
233111CR	8451-100-10	1	100' reel .....	\$19.45	\$17.65	\$16.04
233120CR	8451-500-10	1	500' reel .....	86.55	78.55	71.36
233138CR	8451-1000-10	1	1000' reel .....	155.79	142.83	131.84
234062CR	8451-U500-10	1	500' unreel box .....	86.49	78.55	71.36
234061CR	8451-U1000-10	1	1000' unreel box .....	155.79	142.83	131.84

### Audio, Control, and Instrumentation Cables Non-Plenum (Cont'd)

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polypropylene insulation • PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .135"
- Color: gray – 08



Part No.	Product No.	No. of Pairs	Description	1	5	10
232688CR	9451-100-08	1	100' reel .....	\$23.75	\$19.95	\$18.95
232696CR	9451-500-08	1	500' reel .....	90.29	79.09	71.19
233411CR	9451-T1000-08	1	1000' reel .....	136.19	131.25	124.69

**22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire**

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .175"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234190CR	8761-500-60	1	500' reel .....	\$92.59	\$80.22	\$77.14
234189CR	8761-1000-60	1	1000' reel .....	173.75	159.25	147.65
234192CR	8761-U500-60	1	500' unreel box .....	93.59	84.90	77.14
234191CR	8761-U1000-60	1	1000' unreel box ..	148.55	137.39	135.16

**22 AWG stranded (7 x 30) shielded with 24 AWG stranded TC drain wire**

- Polypropylene insulation
- Nominal capacitance: 115pF/m
- Nominal outer diameter: .168"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234179CR	8723-100-60	2	100' reel .....	\$21.49	\$19.54	\$17.76
234181CR	8723-500-60	2	500' reel .....	107.99	97.71	88.79
234180CR	8723-1000-60	2	1000' reel .....	195.79	179.51	165.72
234183CR	8723-U500-60	2	500' unreel box ....	110.99	99.99	84.99
234182CR	8723-U1000-60	2	1000' unreel box ..	199.99	189.99	179.99

**20 AWG stranded (7 x 28) unshielded**

- Chrome PVC jacket
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234171CR	8205-U500-60	1	500' unreel box ....	\$69.99	\$59.22	\$58.51
234170CR	8205-U1000-60	1	1000' unreel box ..	121.39	109.99	105.93

**20 AWG stranded (7 x 28) shielded with 22 AWG stranded TC drain wire**

- Semi-rigid PVC insulation and overall chrome PVC jacket
- Nominal capacitance: 180pF/m
- Nominal outer diameter: .300"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234259CR	9402-100-60	2	100' reel .....	\$59.99	\$56.75	\$53.25
234261CR	9402-U500-60	2	500' unreel box ....	284.99	272.82	250.61
234260CR	9402-1000-60	2	1000' reel .....	546.75	501.22	462.63

**18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire**

- Tinned copper, twisted pair
- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .222"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234184CR	8760-100-60	1	100' reel .....	\$34.49	\$28.93	\$27.48
234186CR	8760-500-60	1	500' reel .....	117.75	106.82	97.05
234185CR	8760-1000-60	1	1000' reel .....	218.99	206.74	196.39
234188CR	8760-U500-60	1	500' unreel box .....	99.99	94.99	91.99
234187CR	8760-U1000-60	1	1000' unreel box ..	199.99	189.99	182.99





## Paired Line Level Analog Audio Cable

20 AWG stranded (7 x 28) with 20 AWG stranded TC drain wire

- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .204"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
234194CR	8762-100-60	1	100' reel .....	\$23.39	\$21.25	\$19.29
234196CR	8762-500-60	1	500' reel .....	108.59	102.86	97.15
234195CR	8762-1000-60	1	1000' reel .....	205.69	194.28	182.86
234198CR	8762-U500-60	1	500' unreel box ....	108.59	102.86	97.15
234197CR	8762-U1000-60	1	1000' unreel box ..	205.69	194.28	182.86

16 AWG stranded (19 x 29) shielded with 18 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .313"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
233146CR	8719-100-60	1	100' reel .....	\$59.99	\$54.99	\$49.99
233154CR	8719-500-60	1	500' reel .....	198.65	180.24	163.88
233162CR	8719-1000-60	1	1000' reel .....	349.99	329.99	309.99
234064CR	8719-U500-60	1	500' unreel box ....	198.65	180.24	163.88
234063CR	8719-U1000-60	1	1000' unreel box ..	349.99	329.99	309.99

14 AWG stranded (19 x 27) shielded with 16 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .355"
- Color: chrome – 60



Part No.	Product No.	No. of Pairs	Description	1	5	10
233171CR	8720-100-60	1	100' reel .....	\$59.99	\$51.55	\$48.97
233189CR	8720-500-60	1	500' reel .....	229.99	214.99	199.99
233197CR	8720-1000-60	1	1000' reel .....	429.99	399.99	389.99
234065CR	8720-U500-60	1	500' unreel box ....	229.99	214.99	199.99



## Paired DataTwist® Category 5e UTP Cable

TIA/EIA – 568-B.2, unbonded-pair cable

- 4 pair unshielded • 24 AWG solid
- Maximum DCR per 100m – 9.38Ω
- Input impedance: 100Ω



1585A series:

- Plenum, FEP Teflon® insulation, Flamarrest® jacket
- Nominal outer diameter: .200"

1583A series:

- Non-plenum, polyolefin insulation, PVC jacket,
- Nominal outer diameter: .214"

Part No.	Product No.	Color	Description	1	5	10
234092CR	1585A-100-877	Natural	100' reel .....	\$29.99	\$28.49	\$26.99
234094CR	1585A-500-877	Natural	500' reel .....	129.99	114.99	99.99
234093CR	1585A-1000-877	Natural	1000' reel .....	199.99	189.99	179.99
234095CR	1585A-U1000-877	Natural	1000' unreel box ..	199.99	189.99	179.99
234096CR	1585A-U100-D15	Blue	100' unreel box ....	29.99	28.49	26.99
234098CR	1585A-U500-D15	Blue	500' unreel box ....	129.99	114.99	99.99
234097CR	1585A-U1000-D15	Blue	1000' unreel box ..	199.99	189.99	179.99
234089CR	1583A-100-06	Blue	100' reel .....	9.99	9.49	8.99
234176CR	1583A-500-06	Blue	500' reel .....	49.99	44.99	39.99
234090CR	1583A-1000-06	Blue	1000' reel .....	85.69	77.75	70.64
234091CR	1583A-U1000-06	Blue	1000' unreel box ....	85.69	77.75	70.64

SALE



## Multi-Conductor Audio, Control, and Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .199"
- Color: chrome – 60



Part No.	Product No.	Conductors	Description	1	5	10
233234CR	8771-100-60	3	100' reel .....	\$29.99	\$25.95	\$24.65
233242CR	8771-500-60	3	500' reel .....	99.49	94.31	89.07
233251CR	8771-1000-60	3	1000' reel .....	188.85	178.14	167.66
234067CR	8771-U500-60	3	500' unreel box ....	99.49	94.31	89.07
234066CR	8771-U1000-60	3	1000' unreel box ..	188.85	178.14	167.66

22 AWG stranded (7 x 30) unshielded

- PVC insulation • Color: chrome – 60



8443 Series



8444 Series



8445 Series

Part No.	Product No.	Conductors	Description	1	5	10
232995CR	8442-100-60	2	100' reel .....	\$11.99	\$10.99	\$9.99
233007CR	8442-500-60	2	500' reel .....	51.59	48.91	46.19
233015CR	8442-1000-60	2	1000' reel .....	96.45	92.38	85.69
234054CR	8442-U500-60	2	500' unreel box ....	51.59	48.91	46.19
234053CR	8442-U1000-60	2	1000' unreel box ....	96.45	92.38	85.69
233023CR	8443-100-60	3	100' reel .....	15.69	14.25	12.94
233031CR	8443-500-60	3	500' reel .....	72.75	68.91	65.09
233040CR	8443-1000-60	3	1000' reel .....	137.79	130.17	120.75
234056CR	8443-U500-60	3	500' unreel box ....	72.75	68.91	65.09
234055CR	8443-U1000-60	3	1000' unreel box ..	137.79	130.17	120.75
233058CR	8444-100-60	4	100' reel .....	19.99	18.21	16.54
233066CR	8444-500-60	4	500' reel .....	92.99	88.07	83.19
233074CR	8444-1000-60	4	1000' reel .....	176.19	166.35	154.31
234058CR	8444-U500-60	4	500' unreel box ....	92.99	88.07	83.19
234057CR	8444-U1000-60	4	1000' unreel box ..	176.19	166.35	154.31
233082CR	8445-100-60	5	100' reel .....	25.11	22.76	20.69
233091CR	8445-500-60	5	500' reel .....	111.99	101.80	93.33
233103CR	8445-1000-60	5	1000' reel .....	220.25	207.99	192.96
234060CR	8445-U500-60	5	500' unreel box ....	111.99	101.80	93.33
234059CR	8445-U1000-60	5	1000' unreel box ..	220.25	207.99	192.96

20 AWG stranded (7 x 28) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .218"
- Color: chrome – 60



Part No.	Product No.	Conductors	Description	1	5	10
234253CR	8772-U500-60	3	500' unreel box ..	\$132.79	\$120.77	\$110.69
234252CR	8772-U1000-60	3	1000' unreel box ..	241.49	221.39	204.35

18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .246"
- Color: chrome – 60



Part No.	Product No.	Conductors	Description	1	5	10
233200CR	8770-100-60	3	100' reel .....	\$59.99	\$54.99	\$49.99
233218CR	8770-500-60	3	500' reel .....	165.65	150.29	136.55
233226CR	8770-1000-60	3	1000' reel .....	299.99	276.09	254.84
234083CR	8770-U500-60	3	500' unreel box ....	165.65	150.29	136.55
234082CR	8770-U1000-60	3	1000' unreel box ..	299.99	276.09	254.84

### Belden® Cable Now at Jameco!

Professionals don't take chances when it comes to cables, so here's great news. Now you can get your Belden cables from Jameco. The undisputed leader in quality cabling, Belden is the cable of choice for critical applications like Internet, intranet and communication network backbones. We offer the Belden cable of your choice in reels ranging from 100' to 1,000'. You'll find a wide variety of cable types, stranded and solid core, single and multi-conductor, coax, and more. And you'll find them all at very competitive prices, with our fast, efficient service at no extra charge.

Call for OEM pricing

## RG Type Bulk Coaxial Cable

New Lower Prices

RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77°F  
RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/1kft. @ 77°F  
RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/1kft. @ 77°F  
• Prepackaged and priced in increments of 100' or 1000'

Part No.	Cross Ref. No.	Description	100 ft.	1000 ft.
102226CR	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	\$11.99	\$90.00
116898CR	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	18.99	150.00
102218CR	RG59/U	For CATV & video patch cords (solid 22AWG)	12.99	110.00
112037CR	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	18.99	169.00

## Solid Hook-Up Wire – 22 AWG

• Temp. range: -55°C to +105°C • Passes UL VW-1 flame test  
• MIL-W-16878D type B • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)  
• For use with breadboards such as the JE20 series, pg 218

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
36767CR	122BE/C	Blue	\$5.49	36775CR	122BE/K	Blue	\$39.99
36791CR	122BK/C	Black	5.49	36804CR	122BK/K	Black	39.99
36821CR	122G/C	Green	5.49	36839CR	122G/K	Green	39.99
36855CR	122R/C	Red	5.49	36863CR	122R/K	Red	39.99
36880CR	122W/C	White	5.49	36898CR	122W/K	White	39.99
36919CR	122Y/C	Yellow	5.49	36927CR	122Y/K	Yellow	39.99

## Modular Telephone Cable – 28 AWG

• Color coded conductors • Flat modular cable  
• PVC jacket • Gray • 7 x 43 stranded

Part No.	Cross Ref. No.	Conductors	100 ft.	1000 ft.	5000 ft.
103430CR	MTC4	4	\$3.49	\$30.00	\$140.00
103448CR	MTC6	6	7.49	50.00	235.00
103450CR	MTC8	8	9.99	62.00	265.00

## 2-Conductor Stranded Power/Speaker Cable – 24 AWG

• Black wire with white polarity stripe  
• Temperature rating: 20°C to 60°C  
• Stranded copper wire (7 x 32) • Operating voltage: 300V

Part No.	Cross Ref. No.	Wt. (lbs.)	100 ft.	Part No.	Cross Ref. No.	Wt. (lbs.)	1000 ft.
100280CR	224BK/C	0.8	\$5.59	100298CR	224BK/K	7.8	\$39.95

## Category 5 Network Cable

• 100MHz • 8C • 4 twisted pairs • UTP  
• Insulation: polyethylene • Nom. OD.: 0.189"  
• Nom. impedance: 100Ω

Solid: uses modular plug P/N 119343CR, pg 75  
Stranded: uses modular plug P/N 79281CR, pg 75  
• Prepackaged and priced in increments of 25', 100' or 1000'

### 24 AWG UTP Category 5 Enhanced – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CR	Solid (gray)	\$4.99	\$17.00	\$100.00
176233CR	Stranded (gray)	5.99	21.00	180.00
201582CR	Stranded (blue)	5.99	18.00	160.00

### 24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130CR	Stranded (gray) (7/32 AWG)	\$5.95	\$19.35	\$164.50

## Multiconductor Shielded Computer Communication Cable – 24 AWG

• Stranded copper wire, multi-colored insulation  
• Insulated with polyvinyl chloride (PVC)  
• Voltage rating: 300V • Color: gray • 24 AWG (7 x 32 AWG)  
• Shielded 100% w/ aluminum mylar • Drain wire  
• Prepackaged and priced in increments of 25', 100' or 1000'

Part No.	Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.	1000 ft.
31860CR	SC4	4	0.20"	\$4.75	\$17.00	\$140.00
31878CR	SC9	9	0.23"	11.25	35.00	270.00
31843CR	SC15	15	0.28"	14.75	49.00	430.00
31851CR	SC25	25	0.37"	22.25	71.00	590.00

## UL 1007 Stranded Hook-Up Wire

300 Volts

• 80°C • PVC insulation • CSA: TR-64 • 18/20/22 AWG  
• Temperature range: -40°C to +80°C • Sold in 100' rolls

Part No.	Cross Ref. No.	AWG	Strands	Color	Wt. (lbs.)	1	10
126084CR	223SBK/C	22	7 x 30	Black	0.4	\$3.39	\$2.99
126033CR	223SR/C	22	7 x 30	Red	0.4	3.39	2.99
126076CR	223SW/C	22	7 x 30	White	0.4	3.39	2.99
125840CR	203SBK/C	20	10 x 30	Black	0.6	4.95	4.49
125794CR	203SR/C	20	10 x 30	Red	0.5	4.95	4.49
125831CR	203SW/C	20	10 x 30	White	0.5	4.95	4.49
125786CR	183SBK/C	18	16 x 30	Black	0.8	5.79	5.25
125735CR	183SR/C	18	16 x 30	Red	0.8	5.79	5.25
125751CR	183SW/C	18	16 x 30	White	0.8	5.79	5.25

## UL 1430 Stranded Hook-up Wire

• Temperature rating: 105°C • Voltage: 300V • 18/20 AWG  
• Average wall thickness: .016 • Sold in 100' rolls

Part No.	Gauge	Color	Strands	Dia. (in.)	Dia. (mm)	1	10	25
307918CR	18	Black	19 x 30	.082	2.083	\$12.95	\$11.65	\$10.49
307926CR	18	Red	19 x 30	.082	2.083	12.95	11.65	10.49
305015CR	18	Orange	7 x 26	.082	2.083	12.95	11.65	10.49
305023CR	18	Yellow	7 x 26	.082	2.083	12.95	11.65	10.49
304995CR	20	Yellow	19 x 32	.071	1.803	12.95	11.65	10.49
305007CR	20	Gray	19 x 32	.071	1.803	12.95	11.65	10.49
304979CR	20	Blue	7 x 28	.070	1.778	12.95	11.65	10.49
304987CR	20	Gray	7 x 28	.070	1.778	12.95	11.65	10.49
307897CR	20	Black	7 x 28	.070	1.778	12.95	11.65	10.49
307900CR	20	Red	7 x 28	.070	1.778	12.95	11.65	10.49

## Twisted Pair Cable – 24 AWG

• PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)  
• Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80°C • 300 V

Part No.	Cross Ref. No.	Color	100 ft.	Part No.	Cross Ref. No.	Color	1000 ft.
105911CR	224GW/C	Green/white	\$5.49	105806CR	224GW/K	Green/white	\$44.95
173147CR	224RW/C	Red/white	5.49	173155CR	224RW/K	Red/white	44.95
173163CR	224BW/C	Black/white	5.49	173171CR	224BW/K	Black/white	44.95

## Kynar™ Wire Wrap Wire – 30 AWG

• Assorted color coded insulation • Used for prototyping  
• Color coded Kynar™ (Polyvinylidene Fluoride) insulation  
• Silver plated copper (solid conductor) • UL 1423  
• Temperature: -40°C to +125°C • See pg 91 for sockets  
• Wire wrap tools, pg 205 • Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	1000 ft.
22541CR	Blue	0.1	\$4.95	22550CR	Blue	0.6	\$29.95
22576CR	Black	0.1	4.95	22584CR	Black	0.6	29.95
22630CR	Red	0.1	4.95	22648CR	Red	0.6	29.95
22664CR	White	0.1	4.95	22672CR	White	0.6	29.95
22605CR	Green	0.1	4.95	22613CR	Green	0.6	29.95
22699CR	Yellow	0.1	4.95	22701CR	Yellow	0.6	29.95

## Gray Flat Ribbon Cable – 28 AWG

• Single edge red stripe for pin 1 orientation  
• Insulation: polyvinyl chloride (PVC) • 28 AWG (7 x 36) • Center spacing: 0.05"  
• Voltage rating: 300V • Stranded copper wire • Temp. rating: -20°C to +80°C  
• Prepackaged and priced in increments of 10', 25', 100' or 500'

Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
135538CR	171-10	10	\$1.49	\$3.20	\$11.50	\$47.50
37671CR	171-16	16	2.19	5.00	16.00	70.00
37719CR	171-20	20	3.99	6.25	16.00	65.00
37760CR	171-25	25	3.89	8.75	25.00	110.00
37807CR	171-26	26	3.49	8.00	25.00	120.00
37840CR	171-34	34	4.25	9.25	32.00	120.00
37911CR	171-37	37	5.89	11.75	32.00	125.00
37920CR	171-40	40	7.39	17.50	48.00	215.00
37954CR	171-50	50	6.75	14.50	49.00	210.00
103481CR	171-60	60	8.95	19.75	65.00	285.00

## Multicolor Flat Ribbon Cable – 28 AWG

- Standard 10-color repeat sequence
- Center spacing: 0.05"
- Temp. rating: -20°C to +80°C
- Prepackaged and priced in increments of 10', 25', 100' or 500'
- 28 AWG (7 x 36)
- Voltage rating: 300V
- Stranded copper wire



Part No.	Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
112547CR	28RC10	10	\$1.95	\$4.50	\$17.50	\$70.00
105671CR	28RC16	16	3.25	7.25	24.00	100.00
105689CR	28RC20	20	3.95	9.00	30.00	125.00
105697CR	28RC25	25	6.29	14.25	49.95	219.95
105700CR	28RC34	34	6.99	14.75	49.00	225.00
105726CR	28RC40	40	8.69	19.55	69.49	299.95
105718CR	28RC50	50	10.95	24.95	85.95	384.95

## Disk Drive Cables



185084CR



32918CR



72805CR



175492CR

Part No.	Description	Cable Length	1	10	100
185084CR	34-pin header socket ribbon cable for floppy drive	25"	\$1.19	\$ .99	<b>(\$ .75)</b>
32918CR	34-pin header socket ribbon cable for floppy to card	23"	3.49	2.99	<b>(2.25)</b>
72805CR	Two 40-pin header socket ribbon cable for IDE drive	18"	3.69	3.14	<b>(2.35)</b>
175492CR	40-pin header socket ribbon cable for ultra DMA66/100	17"	6.95	6.25	5.49

## Internal and External SCSI Cables for Complete Connectivity



32715CR



137550CR



118084CR



118076CR



137568CR

- For PC/XT/AT and compatibles
- All lines connected

Part No.	Description	1	10	100
32715CR	50-pin header socket ribbon cable SCSI-I (18')	\$3.95	\$3.49	\$2.95
137550CR	68-pin header internal ribbon cable SCSI-III (27')	12.49	11.25	10.15
118084CR	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	14.95	13.49	11.95
118076CR	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6')	17.95	15.95	13.95
137568CR	Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3')	<b>7.19</b>	<b>6.47</b>	<b>5.82</b>

† Also Macintosh® compatibles, see right for SCSI type connector guide

## Internal Computer Ribbon Cables



185068CR  
(3 1/2 Floppy)



32686CR (IDE)



185076CR (IDE)

Part No.	Conductors	Length	1	10	100
185068CR	34	9.0"	\$2.95	\$2.51	<b>(\$1.88)</b>
185076CR	40	14.0"	.79	.65	<b>(.49)</b>
32686CR	40	18.0"	3.95	3.49	2.95

## Ribbon Cable Assemblies

- Metal connector
- 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



12407CR

Part No.	Description	1	10	100
12407CR	4' DB25 M-F	\$4.49	\$3.95	\$3.59
208581CR	6' DB9 M-F	3.95	3.55	3.19

Our Computer Section  
starts on page 166.

## PC/XT/AT & PS/2 Keyboard Extension Cables

- Color: beige
- 114981CR/112045CR:
- 5-pin DIN male-to-female
- 28548CR/111053CR:
- 6-pin mini DIN female-to-male

Quantity  
**SAVE**



114981CR

Part No.	Description	1	10	100
114981CR	PC/XT/AT 6' non-coiled	\$1.99	\$1.69	<b>(\$1.27)</b>
112045CR	PC/XT/AT 10' non-coiled	3.95	3.36	<b>(2.52)</b>
28548CR	PS/2 6' non-coiled	4.35	3.89	3.49
111053CR	PS/2 10' non-coiled	5.49	4.99	4.39

## AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

- 28003CR:
- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN
- 85500CR:
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors



28003CR

Part No.	Length	Color	Wt. (lbs.)	1	10	100
28003CR	6.5"	Beige	0.6	\$3.95	\$3.49	\$3.15
85500CR	11.3"	Beige	0.8	5.39	4.85	4.39

## 3.5" Disk Drive Power Adapter Cable

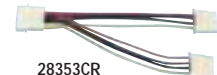
- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



Part No.	Length	AWG	1	10	100
28396CR	3.5"	22	\$2.49	\$2.25	\$1.95

## 3.5" & 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



28353CR

Part No.	Drive	AWG	Length	1	10	100
28353CR	5.25"	18	5"	\$2.95	\$2.69	\$2.15
277528CR	5.25"	20	6"	2.85	2.59	2.25
72303CR	3.5"	22	5"	2.75	2.49	2.19

## ATX Power Supply 15" Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply
- 15" L x 18 AWG (wires)



Part No.	Mfr.	Cross Ref. No.	1	10	100
170237CR	ATX-400-RV		\$6.49	\$5.85	\$5.29

## IEEE 1284 Parallel/ Serial High Speed Cables

IEEE 1284 is the standard in high speed printing. Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.



- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Color: beige (P/N 130067CR); black (P/N 161630CR); gray (P/N 223845CR)

Part No.	Description	1	10
130067CR	6' DB25 M-Cent. parallel 36M	\$11.95	\$10.95
223845CR	6' DB25 M-Cent. parallel 36M	11.95	10.95
161630CR	10' DB25 M-M serial cable	14.95	13.49

## IEEE 488 Cables

A variety of cable lengths are offered to ensure that IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 with stackable 24-pin GPIB connectors on both ends.



73154CR

Part No.	Description	Wt. (lbs.)	1	10	25
73154CR	1 meter	0.8	\$36.49	\$32.79	\$29.49
115781CR	2 meter	1.2	37.95	34.19	30.95
115801CR	4 meter	2.0	38.95	36.19	31.95

## Macintosh® Printer Cables



Part No.	Description	1	10	50
10604CR	6' mini DIN8M	\$4.95	\$4.45	\$3.99
130024CR	10' mini DIN8M	5.99	5.39	4.85



## RGB Video Cables

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male
- Weight: 0.9 lbs.



Quantity  
**SAVE**

Part No.	Description	1	10	25
73648CR	6' cable (black)	\$19.95	\$16.99	<b>\$12.75</b>
118068CR	10' cable (black)	31.95	27.15	<b>20.39</b>

## Serial Null Modem Cables

- Molded type connectors
- Color: gray
- 181403CR/180697CR Pin outs:  
1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7
- 181438CR Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial Printer Null Modem)
- 180582CR Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20: 7-8; (Serial Printer Null Modem)
- 180742CR Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8



Part No.	Description	Wt. (lbs.)	1	10	50
181403CR	6' DB9 F to DB9 F	0.3	\$5.69	\$5.09	\$4.59
180697CR	10' DB9 F to DB9 F	0.4	6.79	6.09	5.49
181438CR	6' DB25 M to DB9 F	0.4	4.95	4.49	3.95
180582CR	10' DB25 M to DB9 F	0.4	6.69	6.05	5.45
180742CR	10' DB25 F to DB9 F	0.5	7.39	6.65	5.99

## VGA Monitor Cables

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male



Part No.	Description	1	10	100
66173CR	6' monitor cable	\$6.49	\$5.89	\$5.29
148523CR	10' monitor cable	6.95	6.25	5.99

## 9-Pin Monitor Cable

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles



Part No.	Description	1	10	100
66157CR	6' DB9 M-M	\$4.45	\$3.95	\$3.55

## VGA Monitor Extension Cables

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles
- 134041CR: • HDDB15 female with hex nuts and HDDB15 male with thumbscrews
- 66165CR/148531CR: • Thumbscrews on each end



Part No.	Description	1	10	100
134041CR	6' screws/hex nuts	\$4.49	\$3.95	\$3.49
66165CR	6' thumbscrews	6.59	5.95	5.35
148531CR	10' thumbscrews	7.49	6.79	5.99

## DA15 Extension Cables

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray (237032CR: black)



Part No.	Description	Length	1	10	100
181286CR	DA15 M-M	6'	\$5.49	\$4.95	\$4.45
181358CR	DA15 M-F	6'	5.49	4.95	4.45
237032CR	DA15 M-F	8'	6.99	5.95	<b>4.45</b>

## DB25-to-Centronics Parallel Printer Cables

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles

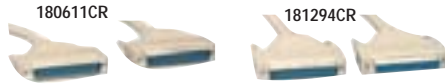
Quantity  
**SAVE**



Part No.	Description	Wt. (lbs.)	1	10	100
28716CR	6' straight	0.4	\$4.69	\$4.25	\$3.85
223845CR	6' straight	0.6	11.95	10.95	10.95
123781CR	10' straight	0.6	5.95	5.09	<b>3.79</b>
164777CR	10' right angle*	0.7	4.95	4.45	3.95
28708CR	15' straight	0.8	5.95	5.09	<b>3.79</b>
101899CR	25' straight	1.1	5.95	5.09	<b>3.79</b>

\* Centronics right angle

## 37-Pin Straight Through Cable Adapters



Part No.	Description	1	10	100
180611CR	6' DC37 M-M	\$6.95	\$6.29	\$5.65
181294CR	6' DC37 M-F	5.95	5.49	4.95

## Monitor/Mouse/Keyboard Cables

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse



Part No.	Description	Wt. (lbs.)	1	10
141284CR	6' cable	1.6	\$22.95	\$19.95
141276CR	32' cable	4.8	39.95	35.95

## Switch Box Adapter Cables

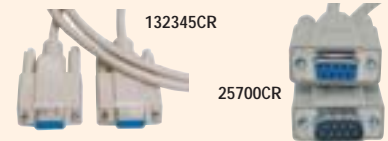
- 177261CR: Male to male non-coiled cable for P/N 79177CR switch box, pg 176
- 114913CR: Male to male coiled cable for P/N 114155CR switch box, pg 176
- 174772CR: Male to male 174908CR/205655CR: Male to male non-coiled 112627CR: Male to male non-coiled cable for P/N 79177CR switch box, pg 176

Quantity  
**SAVE**



Part No.	Description	Length	1	10	50
114913CR	5-pin DIN	5' (gray)	\$4.95	\$4.49	\$3.95
177261CR	6-pin mini DIN	2' (gray)	2.95	2.55	<b>1.89</b>
174772CR	6-pin mini DIN	6' (black)	4.95	4.25	<b>3.19</b>
174908CR	6-pin mini DIN	6' (gray)	5.75	5.15	4.65
112627CR	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655CR	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

## DB9 Extension Cables



- All lines connected straight through
- 132345CR/196365CR: • DB9 female to DB9 female cable with thumbscrews
- 220661CR/25700CR/148515CR/199638CR: • DB9 male to DB9 female cable with thumbscrews
- 181665CR: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
220661CR	5' M-F	\$4.39	\$3.89	\$3.35	\$2.89
132345CR	6' F-F	4.95	4.49	3.95	3.49
199638CR	6' M-F (black)	4.49	3.95	3.49	2.95
25700CR	6' M-F	4.95	4.49	3.95	3.49
196365CR	10' F-F	6.95	6.25	5.59	4.95
148515CR	10' M-F	7.49	6.79	5.99	4.95
181665CR	10' M-M	6.95	6.25	5.59	4.95

## 9-Pin Test Cable

- DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5

Quantity  
**SAVE**



Part No.	Description	1	10	100
162915CR	DB9 male to DB9 female	\$2.95	\$2.51	<b>\$1.88</b>

## DB9-to-DB25 AT-Adapter Serial Cables

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors

Quantity  
**SAVE**



Part No.	Description	1	10	100
109583CR	1' serial, beige	\$4.35	\$3.95	\$3.49
189333CR	3' serial, beige	3.95	3.39	<b>2.55</b>
207790CR	4' serial, beige	2.35	2.15	1.95
31721CR	6' serial, beige	3.89	3.55	3.15
191361CR	6' serial, gray	4.39	3.99	3.15
155521CR	10' serial, beige	3.95	3.55	3.15

## DB25 Extension Cables

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns 174001CR/175290CR: black\*

Quantity  
**SAVE**



Part No.	Description	Wt. (lbs.)	1	10	50	100
281551CR	3' M-M	0.4	\$4.45	\$4.25	\$3.99	\$3.79
174001CR	3' M-M*	0.6	4.79	4.35	3.89	3.49
65787CR	6' M-M	0.5	6.49	5.89	5.29	4.89
39538CR	10' M-M	0.7	6.95	6.29	5.05	<b>3.69</b>
179979CR	15' M-M	1.2	6.95	6.29	5.05	<b>3.65</b>
67070CR	25' M-M	1.4	10.95	9.95	8.95	7.95
180435CR	50' M-M	3.6	14.95	13.49	11.95	9.95
164291CR	3' M-F	0.4	4.29	3.89	3.49	2.95
175290CR	3' M-F*	0.4	2.95	2.69	2.25	1.59
163133CR	5' M-F	0.6	5.29	4.75	4.29	3.85
67256CR	6' M-F	0.6	6.45	5.79	5.25	4.69
39511CR	10' M-F	0.7	6.95	6.29	5.05	<b>3.69</b>
177279CR	15' M-F	1.0	9.49	8.55	7.69	6.25
101995CR	25' M-F	1.4	11.95	10.79	9.69	7.95
181201CR	50' M-F	3.2	17.95	14.39	10.79	<b>7.55</b>
224266CR	6' F-F	0.7	4.95	3.95	2.95	2.09

## USB-A Female Cables & Bracket

- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long



Part No.	Description	1	10	25
144813CR	USB-A panel mount ..	\$6.95	\$6.25	\$5.59



## USB-to-Centronics Printer Cable

- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers

**SALE**



Part No.	Description	1	10	25
155352CR	6' USB cable .....	\$26.95	\$24.25	\$21.55

## USB Cable Extender

- Extends distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A male to USB-A female
- Size: (adapter): 2.8"L x 1.5"W x 0.6"H • Wt.: 1.0 lb.



Includes: USB-A male to USB-B female cable

Part No.	Description	1	10	25
191441CR	16' USB extender ...	\$29.50	\$26.55	\$23.49

## USB to Serial Adapter with Prolific Chipset

This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, laptops, and handheld held computing devices. Provides high-quality serial connections at transfer rates of more than 500kbps for cell phones, PDAs, digital cameras, modems and ISDN terminal adapters. Since it is a USB connection it eliminates the hassles of traditional serial port connections and IRQ conflicts.



- Frees existing RS-232 ports for other uses
- Supports RS-232 serial interface, automatic hand-shake mode, remote wake-up & power management
- Provides a 96-byte buffer for each upstream and downstream data transfer • Weight: 1.5 lbs.
- Full compliance with USB specification v 1.1
- 7" cable with DB25 male connector and 14" cable with USB-A connector • Size: 2.7"L x 1.6"W x 0.7"H

System requirements: Windows®98/2000, USB host controlled installed in the system

Includes: 3.5" software and manual

Part No.	Description	1	5
213006CR	USB-A to serial converter .....	\$29.95	\$27.95

## USB Gender Adapters

### USB-A to USB-B

- 169383CR: USB-A (M) to USB-B (F)
- 169375CR: USB-A (F) to USB-B (M)



Part No.	Dimensions	1	10	25
169383CR	1.3"L x 0.4"W .....	\$6.95	\$6.35	\$5.59
169375CR	1.7"L x 0.6"W .....	6.95	6.35	5.59

## Retractable USB and Firewire Cables



Carrying all those extra cables for your computer peripherals such as printers, cameras, zip drives, external hard drives, adds weight and gets tangled in your computer bag. With these retractable USB and Firewire cables, you can easily store them in an inside pocket of your bag, plus they are tangle free. Just pull the cable on both ends of the spool and you have a high quality cable that extends to over 2'. Simply pull again and it retracts back into its housing.

### USB cables

Part No.	Description	1	5
226376CR	USB A male to female .....	\$9.95	\$9.45
226368CR	USB A - B .....	9.95	9.45
226384CR	USB A - Mini 4-pin .....	9.95	9.45
226392CR	USB A - Mini 5-pin .....	9.95	9.45

### Firewire cables

Part No.	Description	Price
226405CR	4-pin M - M, 400Mbps .....	\$11.95
227424CR	6-pin M - 4-pin M 400Mbps .....	11.95
227459CR	6-pin M - M 400Mbps .....	11.95

## IEEE 1394 Firewire Cables



Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant
- UL approved
- Molded connectors

### 4-pin Male to 4-pin Male

Part No.	Description	1	10	25
222631CR	3' cable black .....	\$5.99	\$5.39	\$4.99
175821CR	6' cable black .....	7.99	6.99	5.99
222244CR	10' cable black .....	9.99	8.99	7.99
222252CR	15' cable black .....	12.99	11.69	10.49

### 4-pin Male to 6-pin Male

Part No.	Description	1	10	25
222623CR	3' cable black .....	\$5.99	\$5.39	\$4.99
175839CR	6' cable black .....	7.99	6.99	5.99
222228CR	10' cable black .....	9.99	8.99	7.99
222236CR	15' cable black .....	12.99	11.69	10.49

### 6-pin Male to 6-pin Male

Part No.	Description	1	10	25
222615CR	3' cable black .....	\$5.99	\$5.39	\$4.99
175847CR	6' cable black .....	7.99	6.99	5.99
222201CR	10' cable black .....	9.99	8.99	7.99
222210CR	15' cable black .....	12.99	11.69	10.49

## USB 2.0 Cables

**SALE**



- Higher transfer rate up to 480Mbps
- Backward compatible w/ USB 1.1 products

### USB-A Male to USB-A Male

Part No.	Description	1	10	25
229681CR	6' cable beige .....	\$1.65	\$1.49	\$1.39
222033CR	6' cable black .....	1.65	1.49	1.39
229551CR	6' cable clear .....	1.65	1.49	1.39
229690CR	10' cable beige .....	1.89	1.75	1.65
222041CR	10' cable black .....	1.89	1.75	1.65
229569CR	10' cable clear .....	1.89	1.75	1.65
229702CR	15' cable beige .....	2.85	2.59	2.49
222050CR	15' cable black .....	2.85	2.59	2.49
229577CR	15' cable clear .....	2.85	2.59	2.49

### USB-A Male to USB-B Male

Part No.	Description	1	10	25
229711CR	3' cable beige .....	\$1.55	\$1.39	\$1.29
222607CR	3' cable black .....	1.55	1.39	1.29
229585CR	3' cable clear .....	1.55	1.39	1.29
229729CR	6' cable beige .....	1.65	1.49	1.39
222009CR	6' cable black .....	1.65	1.49	1.39
229593CR	6' cable clear .....	1.65	1.49	1.39
229737CR	10' cable beige .....	1.89	1.75	1.65
222017CR	10' cable black .....	1.89	1.75	1.65
229606CR	10' cable clear .....	1.89	1.75	1.65
229761CR	15' cable beige .....	2.85	2.59	2.49
222025CR	15' cable black .....	2.85	2.59	2.49
229614CR	15' cable clear .....	2.85	2.59	2.49

### USB-A Male to USB-A Female

Part No.	Description	1	10	25
229770CR	6' cable beige .....	\$1.65	\$1.49	\$1.39
222068CR	6' cable black .....	1.65	1.49	1.39
229622CR	6' cable clear .....	1.65	1.49	1.39
229788CR	10' cable beige .....	1.89	1.75	1.65
222076CR	10' cable black .....	1.89	1.75	1.65
229631CR	10' cable clear .....	1.89	1.75	1.65
229796CR	15' cable beige .....	2.85	2.59	2.49
222084CR	15' cable black .....	2.85	2.59	2.49
229649CR	15' cable clear .....	2.85	2.59	2.49

## USB 1.1 Cables



### USB-A Male to USB-A Male

Part No.	Description	1	10	25
196904CR	2' cable .....	\$1.35	\$1.15	<b>\$0.86</b>
175425CR	3' cable .....	1.29	1.15	1.05

### USB-A Male to USB-B Male

Part No.	Description	1	10	25
175417CR	3' cable .....	\$1.29	\$1.15	\$1.05
169359CR	6' cable .....	4.95	4.49	3.95

## Jameco's Low-Price Guarantee

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!



## Category 5e Network Cables

- UTP
- 8P8C
- 4 pair
- 24 AWG (7 x 43) stranded
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance



### Category 5e (350MHz)

Part No.	Length	Color	1	10	100
168292CR	3 ft.	Gray .....	\$1.79	\$1.49	\$1.39
168305CR	7 ft.	Gray .....	2.99	2.59	2.39
168313CR	15 ft.	Gray .....	5.29	4.39	3.99
168321CR	25 ft.	Gray .....	7.99	6.79	6.39
201777CR	3 ft.	Red .....	1.79	1.49	1.39
201785CR	7 ft.	Red .....	2.99	2.59	2.39
201793CR	15 ft.	Red .....	6.95	5.95	4.45
201806CR	25 ft.	Red .....	7.99	6.79	6.39
201697CR	3 ft.	Black .....	1.79	1.49	1.39
201700CR	7 ft.	Black .....	2.99	2.59	2.39
201718CR	15 ft.	Black .....	5.29	4.39	3.99
201726CR	25 ft.	Black .....	7.99	6.79	6.39
201734CR	3 ft.	Blue .....	1.79	1.49	1.39
201742CR	7 ft.	Blue .....	2.99	2.59	2.39
201751CR	15 ft.	Blue .....	5.29	4.39	3.99
201769CR	25 ft.	Blue .....	7.99	6.79	6.39
201814CR	3 ft.	Yellow .....	1.79	1.49	1.39
201822CR	7 ft.	Yellow .....	2.99	2.59	2.39
201831CR	15 ft.	Yellow .....	5.29	4.39	3.39
201849CR	25 ft.	Yellow .....	7.99	6.79	6.39

### Category 5 (100MHz)

Part No.	Length	Color	1	10	100
281261CR	7 ft.	Gray .....	\$2.49	\$2.39	\$2.25
281455CR	25 ft.	Gray .....	4.35	4.15	3.95
277641CR	6 ft.	Red .....	2.49	2.25	1.99
277659CR	12 ft.	Black .....	2.99	2.69	2.45
203051CR	10 ft.	Blue .....	2.75	2.15	1.59
277675CR	12 ft.	Blue .....	2.99	2.69	2.45
277616CR	6 ft.	Yellow .....	2.49	2.25	1.99
277667CR	12 ft.	Yellow .....	2.99	2.69	2.45

## Bulk Modular Network Cables

- 8 Conductor
  - UTP
  - 4 twisted pairs
  - Insulation: polyethylene
  - Nom. OD.: 189"
  - Nominal impedance: 100Ω
- Solid:** uses modular plug P/N 119343CR, pg 75  
**Stranded:** uses modular plug P/N 79281CR, pg 75
- 118130CR/201646CR:** 7/32 AWG
- Prepackaged and priced in increments of 25', 100' or 1000'



### 24 AWG UTP Category 5e – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225CR	Solid (gray) .....	\$4.99	\$17.00	\$100.00
201603CR	Solid (blue) .....	4.99	14.00	90.00
176233CR	Stranded (gray) .....	5.99	21.00	180.00
201574CR	Stranded (red) .....	5.99	18.00	160.00
201591CR	Stranded (black) .....	5.99	18.00	160.00
201582CR	Stranded (blue) .....	5.99	18.00	160.00
201566CR	Stranded (yellow) .....	5.99	18.00	160.00

### 24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130CR	Stranded (gray) .....	\$5.95	\$19.35	\$164.50
201646CR	Stranded (black) .....	5.49	15.00	140.00

## CAT 5e Crossover Cables

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP



Part No.	Description	1	10	100
302041CR	6' cable RJ45 .....	\$3.75	\$3.39	\$3.05
169261CR	10' cable RJ45 .....	6.95	6.25	5.59

## Keystone-Type Wall Plates

- Size: 2.8"W x 4.5"H

Part No.	No. of ports	Color	1	10	100
195549CR	1	Ivory	\$1.25	\$1.15	\$0.99
195557CR	2	Ivory	1.25	1.15	.99
195565CR	3	Ivory	1.25	1.05	.79
195573CR	4	Ivory	1.25	1.05	.79
212978CR	1	White	1.25	1.15	.99
212994CR	2	White	1.25	1.15	.99
212986CR	3	White	1.25	1.15	.99
212960CR	4	White	1.25	1.15	.99
213508CR	Hole Filler	White	.29	.25	.19



## Modular RJ-11 & RJ-45 Jacks

### Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- Size: 0.57"W x 0.63"H x 1.23"D
- RJ45: 8P8C RJ11: 6P6C



### RJ45

Part No.	Color	1	10	100
195590CR	Red	\$3.75	\$3.55	\$3.19
195602CR	Yellow	3.75	3.55	3.19
195611CR	Green	3.75	3.19	2.39
195629CR	Black	3.75	3.55	3.19
195637CR	Ivory	3.75	3.19	2.39
212951CR	Blue	3.75	3.55	3.19
212943CR	White	3.75	3.55	3.19

### RJ11

Part No.	Color	1	10	100
213524CR	Black	\$3.75	\$3.55	\$2.99
213516CR	White	3.75	3.55	3.19

## BNC/F-Type Jacks

- Removable jacks used in wall plates (see above)
- Clip on for easy installation on wall plates
- Keystone type



Part No.	Description	Color	1	10	100
195645CR	F-Type F to F	Ivory	\$1.39	\$1.29	\$1.19
224645CR	F-Type F to F	White	1.39	1.29	1.19
224637CR	BNC F to F	White	2.29	2.05	1.89

## 226-Piece Network Connector Kit

Every connector needed by a network field technician to repair a network.

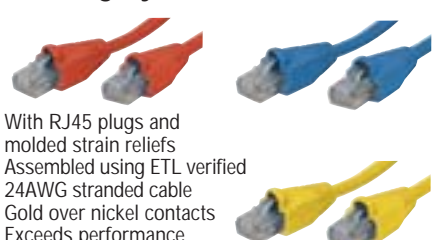
- Size: 10.5"L x 7.0"W x 1.5"H
- Weight: 2.5 lbs.



Part No.	Description	1	10
207079CR	Network connector kit .....	\$34.99	\$31.81

## Category 6 Network Cables

- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8



### Category 6

Part No.	Length	Color	1	10	50
219707CR	3 ft.	Gray .....	\$2.79	\$2.69	\$2.56
219715CR	7 ft.	Gray .....	3.99	3.87	3.68
219723CR	14 ft.	Gray .....	6.59	6.37	6.05
219731CR	25 ft.	Gray .....	9.39	8.92	8.47
219740CR	50 ft.	Gray .....	14.29	13.58	12.90
219854CR	3 ft.	Blue .....	2.79	2.69	2.56
219862CR	7 ft.	Blue .....	3.99	3.87	3.68
219871CR	14 ft.	Blue .....	6.59	6.37	6.05
219889CR	25 ft.	Blue .....	9.39	8.92	8.47
219897CR	50 ft.	Blue .....	14.29	13.58	12.90
220003CR	3 ft.	White .....	2.79	2.69	2.56
220011CR	7 ft.	White .....	3.99	3.87	3.68
220020CR	14 ft.	White .....	6.59	6.37	6.05
220038CR	25 ft.	White .....	9.39	8.92	8.47
220046CR	50 ft.	White .....	14.29	13.58	12.90
219900CR	3 ft.	Red .....	2.79	2.69	2.56
219918CR	7 ft.	Red .....	3.99	3.87	3.68
219926CR	14 ft.	Red .....	6.59	6.37	6.05
219934CR	25 ft.	Red .....	9.39	8.92	8.47
219942CR	50 ft.	Red .....	14.29	13.58	12.90
219803CR	3 ft.	Green .....	2.79	2.69	2.56
219811CR	7 ft.	Green .....	3.99	3.87	3.68
219820CR	14 ft.	Green .....	6.59	6.37	6.05
219838CR	25 ft.	Green .....	9.39	8.92	8.47
219846CR	50 ft.	Green .....	14.29	13.58	12.90
219758CR	3 ft.	Black .....	2.79	2.69	2.56
219766CR	7 ft.	Black .....	3.99	3.87	3.68
219774CR	14 ft.	Black .....	6.59	6.37	6.05
219782CR	25 ft.	Black .....	9.39	8.92	8.47
219791CR	50 ft.	Black .....	14.29	13.58	12.90
219951CR	3 ft.	Yellow .....	2.79	2.69	2.56
219969CR	7 ft.	Yellow .....	3.99	3.87	3.68
219977CR	14 ft.	Yellow .....	6.59	6.37	6.05
219985CR	25 ft.	Yellow .....	9.39	8.92	8.47
219993CR	50 ft.	Yellow .....	14.29	13.58	12.90

## 3M Tool-Less Modular RJ-45 Jack with Dust Door

A unique and simple CAT5e hardware component (TIA/EIA-568 B.2) utilizing the universally accepted keystone mount. It offers a quick and reliable tool-less connection as the eight conductors are effortlessly terminated in a single operation.

- UL verified TIA/EIA-568 B.2 CAT5e
- Tool-less connector
- Keystone mount
- Integral shutter
- Top or bottom cable insertion
- Self-stripping contacts



Hot New Product!

Part No.	Product No.	1	10	100
263071CR	VOL-OCK5E-U-W .....	\$6.89	\$6.55	\$6.25





## Modular Plugs



P = No. of positions C = No. of contacts  
W/E = Western Electric type number

\* Prepackaged: order in increments of 10, 100 or 1000 116610CR

Part No.	Description	W/E	1	10	100	1000
103491CR	4P4C (handset)	616	*	\$ .11	\$ .099	\$ .089
79290CR	6P4C (RJ11)	623	*	.12	.11	.095
79273CR	6P6C (RJ11)	623	*	.22	.195	.18
79281CR	8P8C (RJ45) (for stranded wire)	641	.35	.28	.24	.20
119343CR	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35	.28
116610CR	8P8C (RJ45) shielded	—	1.09	.99	.89	.79
204222CR	8P8C (RJ45) shielded (for STP solid wire)	—	.95	.89	.79	.75
204231CR	8P8C (RJ45) shielded (for STP stranded wire)	—	1.55	1.49	1.15	.95
116601CR	8P8C (RJ45) shielded (for solid wire)	—	.99	.79	.65	.49
180646CR	10P10C (for stranded wire)	—	1.39	1.15	.82	.69



## Modular Jacks



- Voltage rating: 150VAC max.
- Contact current rating: 1.5A max. @ 25°C
- Durability: 750 mating cycles • PC mount

W/E = Western Electric type number

Part No.	Description	W/E	1	10	100
199620CR	4P4C (handset) .48"W	—	\$ .36	\$ .33	\$ .30
115128CR	4P4C (handset) .395"W	—	.37	.34	.31
151765CR	6P4C (RJ11) side flange	AMP	.45	.43	.39
105945CR	6P4C (RJ11) top flange	623	.62	.49	.39
204206CR	6P4C (RJ11) lead wires	—	1.09	.99	.89
115836CR	6P6C (RJ11) side flange	—	.74	.67	.59
204177CR	6P6C (RJ11) dual	—	1.49	1.35	1.19
124038CR	6P6C (RJ11) 6" leads	—	1.25	1.15	.99
115844CR	8P8C (RJ45)	641	.48	.44	.40
204214CR	8P8C (RJ45) .81"L	—	1.19	1.09	.95
203449CR	8P8C (RJ45) shielded Pin spacing "A" = .055"	—	1.19	.99	.85



## RJ45-Plug Color Caps (Boots)



Part No.	Color	Quantity	10	100	500	1000
204409CR	Black	SAVE	\$ .14	\$ .13	\$ .102	\$ .076
204388CR	Yellow		.14	.13	.102	.076
204353CR	Gray		.14	.13	.10	.076
204361CR	Blue		.14	.13	.102	.076
204425CR	Red		.14	.13	.11	.076
204396CR	Green		.14	.13	.102	.076
204370CR	Ivory		.14	.13	.102	.076



## "EZ" RJ45 Connector

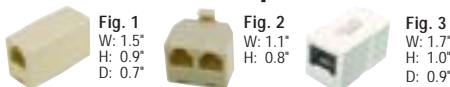
Strip the wire and insert into the plug & pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.

- For solid or stranded wire • 8P8C plug
- Use standard modular crimping tool

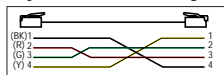
Part No.	Product No.	1	10	100	250
158115CR	RJ45 (8P8C) ..	\$1.75	\$1.58	\$1.42	\$1.25



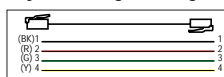
## Modular Couplers and Adapters



Style 1 Reverse wiring for telephone systems



Style 2 Straight wiring for networking/printer sharing



Part No.	Description	Fig.	1	10	100
72207CR	6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11	2	\$ .99	\$ .85	\$ .65
71757CR	6P6C modular coupler, Style 1, RJ11	1	.95	.86	.79
135087CR	6P6C modular coupler, Style 2, RJ11	1	.99	.89	.79
181091CR	6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P6C), 2 female modular receptacles (6P6C) RJ11	2	.99	.89	.78
118501CR	8P8C modular coupler, Style 1, RJ45	1	1.85	1.75	1.55
135079CR	8P8C modular coupler, Style 2, RJ45	1	1.39	1.25	1.15
153023CR	8P8C modular coupler, Style 2 (for Cat. 5) RJ45	3	7.99	7.19	6.49

## Modular Jack Boxes & Wall Plate

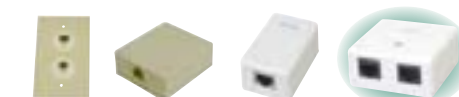
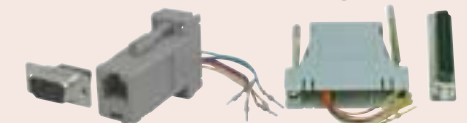


Fig. 1 W: 2.8" H: 4.5" (72311CR) Fig. 2 W: 2.0" H: 2.2" (71651CR) D: 0.9" Fig. 3 W: 1.5" H: 2.4" (213031CR) D: 1.1" Fig. 4 W: 2.4" H: 2.4" (213049CR) D: 1.1"

Part No.	Description	Fig.	1	10	100
72311CR	6P6C & 8P8C double wall jack plate w/ jacks (beige)	1	\$1.95	\$1.75	\$1.57
103464CR	6P4C adhesive jack RJ11 (beige)	2	1.39	1.19	1.09
71984CR	6P6C adhesive jack RJ11 (beige)	2	1.39	1.19	.99
71651CR	8P8C adhesive jack RJ45 (beige)	2	1.95	1.65	1.45
213031CR	8P8C adhesive jack RJ45 (single, white) (CAT 5e)	3	3.29	2.99	2.69
213049CR	8P8C adhesive jack RJ45 (dual, white) (CAT 5e)	4	4.15	3.75	3.39



## RS-232-to-RJ11/RJ45 Modular Jack Adapters



Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part No.	Description	1	10	100
204265CR	DB9 M to RJ11 (6P4C)	\$1.95	\$1.67	\$1.25
66181CR	DB9 M to RJ11 (6P6C)	2.59	2.35	2.09
66190CR	DB9 M to RJ45 (8P8C)	2.89	2.65	2.35
114737CR	DB9 F to RJ11 (6P4C)	1.95	1.79	1.59
66202CR	DB9 F to RJ11 (6P6C)	2.79	2.55	2.29
66211CR	DB9 F to RJ45 (8P8C)	2.99	2.69	2.45
204281CR	DB25 M to RJ11 (6P4C)	2.39	2.15	1.29
66229CR	DB25 M to RJ11 (6P6C)	2.95	2.35	1.99
66237CR	DB25 M to RJ45 (8P8C)	2.99	2.69	2.45
204273CR	DB25 F to RJ11 (6P4C)	1.95	1.75	1.55
66245CR	DB25 F to RJ11 (6P6C)	2.59	1.95	1.39
66253CR	DB25 F to RJ45 (8P8C)	2.89	2.59	2.29

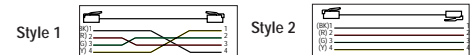
## Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Low Cost Data/Phone Cables

Style 1 – Reverse wiring for telephone systems

Style 2 – Straight wiring for networking/printer sharing



Part No.	Conn. Style	Type	Length	1	10	100
189940CR	1	RJ11-6P2C	7ft.	\$ .99	\$ .84	\$ .63
196226CR	1	RJ11-6P4C	7ft.	1.49	1.15	.79
115553CR	2	RJ11-6P4C	7ft.	1.25	1.09	.89
115545CR	1	RJ11-6P4C	25ft.	2.29	2.09	1.85
201232CR	2	RJ11-6P4C	35ft.	1.95	1.66	1.24
115588CR	1	RJ11-6P6C	7ft.	1.55	1.35	1.15
115617CR	2	RJ11-6P6C	7ft.	2.19	1.99	1.79
115676CR	2	RJ45-8P8C	7ft.	1.89	1.75	1.49

† Beige

## Surface Mount Boxes

### Category 5 and 5e

- RJ45 • 8P8C
- 100MHz
- Size: 2.6"L x 3.2"W x 1.2"H
- CAT 5e (except P/N 176073CR)



Part No.	Description	1	10	100
176073CR	Single jack (beige)	\$6.95	\$6.25	\$5.59
213022CR	Single jack (white)	6.95	6.25	5.59
176081CR	Dual jack (beige)	8.99	7.85	5.89
213014CR	Dual jack (white)	9.95	8.95	7.95

Open an account is easy!!  
Call 1-800-831-4242 for details today.

## Corporate Customers

Call for OEM pricing

## Nylon Cable Ties

### Standard

70560CR

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676CR)
- Sold in increments of 100 or 1000

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
70560CR	18	3.1 x 0.10	.025	.015
126543CR	18	4.0 x 0.10	.02	.014
182676CR	18*	4.75 x 0.13	.043	.025
182650CR	18	5.5 x 0.13	.035	.025
139150CR	18	8.0 x 0.10	.06	.04
182668CR	18	8.0 x 0.13	.075	.05
182684CR	18	8.0 x 0.18	.036	.033
70906CR	40	5.8 x 0.10	.035	.029
190756CR	40	10.0 x 0.14	.12	.086
190772CR	40	11.0 x 0.19	.10	.065
190764CR	40	13.0 x 0.14	.10	.075

\* Black

### Weather Resistant

104141CR

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- Sold in increments of 100 or 1000

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
139125CR	18	3.0 x 0.90	.045	.029
104141CR	18	4.0 x 0.10	.044	.029
104133CR	40	5.8 x 0.10	.047	.031
190781CR	40	8.0 x 0.13	.085	.065
190799CR	40	10.0 x 0.14	.10	.09
190801CR	40	13.0 x 0.14	.113	.088

### Cable Tie Assortments

- Tensile strength: 18-50 lbs.

145701CR:

1000 pcs. (4"L); 10 colors

150412CR:

500 pcs. (4"L); 300 pcs. (8"L);

50 pcs. (11"L), 5 colors

Part No.	Weight (lbs.)	1	10	50
145701CR	0.7	\$9.49	\$8.49	\$7.39
150412CR	1.7	13.95	11.49	9.95

## Cable Tie Tool

- 2.5 - 5mm width (of cable)
- Tension adjustable
- Twist to cut surplus tie end
- Spring return action
- Plastic

Part No.	Description	1	10	100
182297CR	Cable tie tool	\$15.95	\$13.95	\$12.65

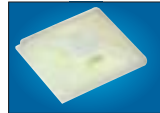
Over 99% of our products are in stock!

**We'll Send It Today!**

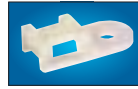
Just place your order by 6PM EST for same business day shipment.

## Cable Tie Mounts and Cable Clamps

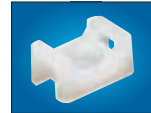
- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- Sold in increments of 10, 100 or 1000



182941CR/171213CR  
71407CR/71394CR  
71386CR



70594CR



182300CR/173761CR



182318CR/182376CR



182334CR/182342CR



173711CR/173729CR  
173737CR/134754CR  
173753CR

Part No.	Mfr. Cross Reference No.	Description	10	100	1000
182941CR	0505HC-101S	4-way cable tie mount, self adhesive, .75"D	.07	.055	.042
171213CR	HC-100	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.5" square	.15	.13	.094
71407CR	HC-101	4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.9" square	.18	.16	.13
71394CR	HC-102	4-way cable tie mount, self adhesive, use w/ 0.2"W max., 1.1" square	.23	.19	.14
71386CR	HC-103	4-way cable tie mount, self adhesive, use w/ 0.4"W max., 1.1" square	.25	.19	.13
70594CR	HC-0	4-way cable tie, screw type, use w/ 0.2"W max., 0.8"L x 0.4"W	.15	.09	.05
182300CR	0510HC-2	Cable tie mount, 1/4" screw hole, 0.5"D	.17	.15	.14
173761CR	HC-1	Cable tie, saddle type, 0.6"L x 0.4"W	.15	.125	.075
182318CR	0519ATC-17	2-way adjustable tie mount, #6 flat head screw, 0.7"D	.26	.24	.22
182376CR	0519ATC-22	2-way adjustable tie mount, #6 flat head screw, 0.9"D	.17	.16	.14
182334CR	0520FC-1	Cable tie mount, self adhesive, 0.1"D	.17	.15	.12
182342CR	0520FC-2	Cable tie mount, self adhesive, 0.2"D	.15	.11	.08
173711CR	UC0	Cable clamp for 1/8" cable	.08	.027	.018
173729CR	UC0.5	Cable clamp for 3/16" cable	.035	.032	.019
173737CR	UC1	Cable clamp for 1/4" cable	.14	.09	.063
134754CR	B0375	Cable clamp for 3/8" cable	.08	.029	.018
173753CR	UC3	Cable clamp for 1/2" cable	.09	.033	.025

## Nylon Cable ID Ties and Tabs



71061CR



135175CR

71061CR: Clear ID tab (0.98" x 0.31")

135175CR: Nylon cable tie ID marker

- Sold in increments of 10, 100 or 1000

Part No.	Size	10	100	1000
71061CR	4.0"L x 0.1"W	.085	.08	.072
135175CR	2.0"L x 0.8"W x .02"T	.22	.11	.08



## Cable Sleeve

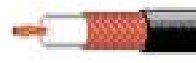
### Clean Cut Expandable Sleeving

- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70°C to 125°C
- Sold in spools of 25'

Part No.	Product No.	Actual/Expanded Dia.	1	10
162157CR	CCPT2X	.250"/.440"	\$15.95	\$14.95
162165CR	CCPT3X	.500"/.750"	17.95	14.49



See pages 66 - 69 for our complete selection of Belden cable and wire.



## Pressure Sensitive Wire Marker

Easy release vinyl cloth markers feature a strong, pressure-sensitive adhesive, for long lasting bond on a wire or cable. Black non-smear legends on white background for easy identification.

- Convenient pocket-size booklet
- 10 sheets numbered 1 to 45 each sheet

Part No.	Product No.	1	10	100
216813CR	TCWM-3	\$12.95	\$11.05	\$8.25

## Self Adhesive Wire Marker

- 90 markers per number
- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used after or before terminal

Part No.	Product No.	1	10
182262CR	0215WMB-1	\$9.95	\$8.95

## 3M Tape Wire Marker

- For marking wires with numerical sequence
- Self adhesive tapes
- Cloth tape label numbered 0-9
- Size: (tape) 96"L x 0.25"W

Part No.	Description	1	10
159231CR	Numerical tape dispenser	\$30.95	\$27.95

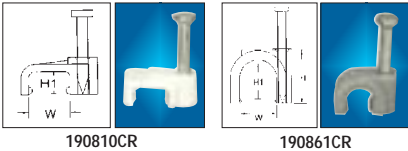
## Cable Markers

- UL approved natural nylon
- 10 piece minimum

Part No.	Size	10	100	1000
182705CR	1.5"L x .75"W	.10	.09	.08
182713CR	2.5"L x 1.76"W	.26	.227	.17

Call for OEM pricing – we carry major manufacturers.

## Nail-In Cable Clips



- Material: impact resistant PE
- With nails inserted
- Sold in increments of 100 or 1000

**SALE**

For telephone cords; white

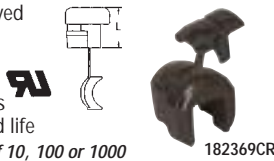
Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190810CR	NF0.7	.22 x .22 x .12	\$ .006	\$ .005
190828CR	NF1.2	.24 x .21 x .15	.014	.013
190836CR	NF1.6	.31 x .31 x .20	.014	.013
190844CR	NF2.0	.33 x .31 x .20	.007	.006
190852CR	NF2.8	.59 x .50 x .34	.01	.009

For general round cables; gray

Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	100	1000
190861CR	NCO.35N	.14 x .23 x .15	\$ .085	\$ .035
190879CR	NCO.5N	.20 x .30 x .21	.014	.013
190887CR	NC1N	.24 x .35 x .26	.05	.02
190895CR	NC2N	.31 x .45 x .34	.05	.02
190908CR	NC3N	.39 x .53 x .41	.05	.02

## Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life
- Sold in increments of 10, 100 or 1000



Part No.	Cable Type	Lgth (in.)	10	100	1000
182351CR	SVI/SVT	.43	\$ .05	\$ .043	\$ .04
182369CR	SJ/SJT; 16 AWG	.58	.18	.10	.085
182377CR	SJC; 18 AWG	.58	.24	.22	.20

## Bushing Assembly Tool

- For use with strain relief bushings, left

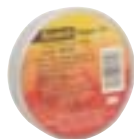


Part No.	Description	1	10	100
73470CR	Bushing tool	\$31.95	\$28.75	\$25.85

## 3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) and is designed to perform in a continuous temperature environment up to 220°F (105°C).

- UL listed and CSA certified
- 0.75" x 66'



Part No.	Product No.	1	10	25
285464CR	3M 06132	\$4.35	\$4.00	\$3.98

## 3M Hook and Loop Fastening System

Nylon hooks mesh with pliable loops. 1" wide strip with adhesive backing sticks instantly to many surfaces.

- Hook and loop: 1" x 15'



Part No.	Product No.	1	5	10
286897CR	3M 06481 (white)	\$31.09	\$29.99	\$28.35
286900CR	3M 06488 (black)	31.55	30.49	28.75

## 3M Dual Lock Fastening System

3M™ dual lock™ reclosable fasteners have been used extensively in transportation, electronics, business equipment, machinery, medical, sign and display markets. When the mushroom-shaped stems interlock, tensile strength is high enough to replace mechanical fasteners, yet you can readily open and close Dual Lock fasteners hundreds of times. High temperature and solvent resistant.

- Adhesive backing for strong bonds
- 1" x 15'
- 5x stronger than conventional hook & loop fasteners
- Audible snap assures secure closure



Part No.	Product No.	1	5	10
288438CR	3M 06463 (clear)	\$74.95	\$71.19	\$67.65

## 3M Double-Sided Foam Tape

Used in a wide variety of applications, this tape features high-shear acrylic adhesive and high temperature resistance. Adheres securely to any surface with its double-sided adhesive. 1/8" thick open-cell urethane foam carrier. Ideal for many manufacturing applications.

- 1/8" thick
- 1" x 12'

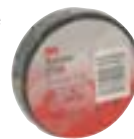


Part No.	Product No.	1	5	10
285907CR	3M 4008	\$14.89	\$11.35	\$10.55

## 3M Tartan 1710 Electrical Tape

3M™ Tartan™ 1710 vinyl insulating tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions (including ultraviolet).

- UL listed
- 0.75" x 60'
- Flame retardant



Part No.	Product No.	1	10	25
285587CR	3M 49656	\$ .95	\$ .89	\$ .86

## 3M Vinyl Electrical Tape

### 5-pack Multi-Colored

3M #35 vinyl electrical color coding tape is used in phase identification, color coding leads, piping systems and for marking safety areas. UL Listed, CSA Certified, and flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) or hot to 220°F (105°C). 5 rolls to a pack with colors blue, green, red, yellow, and white.

- 1/2" x 20'



Part No.	Product No.	1	5	10	25
287806CR	3M 10457	\$7.95	\$6.72	\$6.10	\$5.36

## Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black



### PVC Heat Shrink Tubing

- Shrink temp: 125°C
- Sold in 10' and 100' increments



Part No.	Dia. before (mm)	10 ft.	100 ft.
184721CR	.12" (3)	\$1.19	\$10.50
182730CR	.16" (4)	1.39	12.50
182748CR	.20" (5)	1.45	13.00
182756CR	.24" (6)	1.49	13.50
182764CR	.31" (8)	1.79	16.00
182772CR	.43" (11)	2.80	19.00
182781CR	.59" (15)	3.50	30.00

### PVC Heat Shrink Flat Film

- Shrink temperature: 175°C
- Temperature range: -45°C to +125°C
- Precut 39" length; sold as 1 increment

Quantity  
**SAVE**

Part No.	Flat	Unshrunk Cir. Dia.	Shrunk Cir. Dia.	1*	10*	100*
70631CR	5/16"	1/4"	1/8"	\$1.69	\$1.55	\$1.39
70623CR	1/2"	5/16"	3/16"	1.69	1.45	1.09
70666CR	13/16"	9/16"	1/4"	1.69	1.45	1.09

### Polyolefin Heat Shrink Tubing

- Dielectric strength: 1300V
- Flame retardant
- Flexible
- Shrink temp.: 121°C
- Temperature range: -45°C to +125°C
- Precut 39" length; sold as 1 increment



Part No.	Before	After (Dia.)	1*	10*	100*
71327CR	1/16"	1/32"	\$ .55	\$ .46	\$ .41
71870CR	3/32"	3/64"	.55	.45	.39
71280CR	1/8"	1/16"	.69	.59	.54
72063CR	1/4"	1/8"	.89	.72	.65
226245CR	3/8"	3/16"	1.09	.98	.88
216477CR	1/2"	1/4"	.99	.89	.85

## 3M Heat Shrink Tubing 102-Piece Kit

3M™ FP-301 is a heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C) continuous operation. FP-301 tubing is typically used as a shrink-fit electrical insulation over cable splices and terminations. It is also used for lightweight wire harness covering, wire marking, wire bundling, component packaging and fire resistant covering.

- Assorted pre-shrink sizes: 3/16" (30 pieces); 1/4" (28 pieces); 3/8" (20 pieces); 1/2" (14 pieces); 3/4" (6 pieces); 1" (4 pieces)
- Pre-cut to 6" lengths



Part No.	Description	1	5	10	50
285481CR	Heat shrink kit	\$56.95	\$53.70	\$50.99	\$48.45

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!

**Jameco's Low-Price Guarantee**

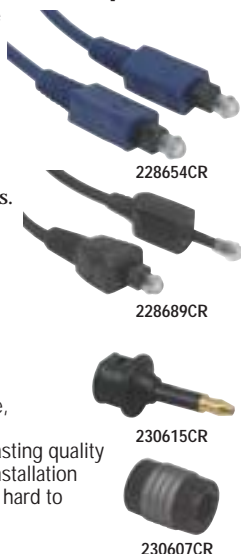
Just call us. It's that simple!



## Digital Audio Optical Cables and Adapters

Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. For the ultimate listening experience, connect to your Dolby Digital™ or DTS® home theater equipment. These cost effective performance TOSLINK type cables give you the cleanest possible signal, even at extreme volume levels for today's audio and home theater applications. They are manufactured with high-quality P.M.M.A. optical fiber and highly-polished lenses. The durable connectors ensure long lasting, corrosion-free connections. The stylish PVC jacket adds flexibility and durability for years of listening pleasure.

- Low-loss core provides low distortion and high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- Corrosion-resistant, precise collar to ensure long lasting quality
- Non-slip rubber grip connector provides for easy installation
- Ultra flexible PVC jacket makes installation, even in hard to reach areas a snap



### Cables

Part No.	Description	1	2	5
228654CR	3' TOSLINK-TOSLINK .....	\$3.79	\$3.35	\$2.85
228689CR	3' TOSLINK-mini plug .....	9.95	8.95	7.95
228662CR	6' TOSLINK-TOSLINK .....	4.75	4.29	3.79
228697CR	6' TOSLINK-mini plug .....	16.65	14.99	13.49
228671CR	12' TOSLINK-TOSLINK .....	7.29	6.59	5.95
228700CR	12' TOSLINK-mini plug .....	23.29	20.95	18.85

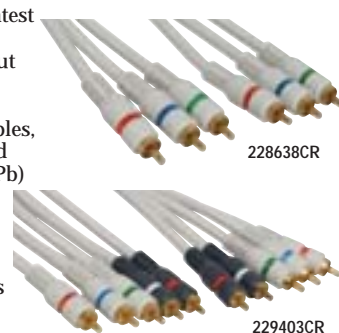
### Adapters

230615CR	TOSLINK - mini plug adapter .....	\$2.79	\$2.59	\$2.49
230607CR	TOSLINK - TOSLINK coupler .....	1.89	1.79	1.69

## Component Video and Audio Cables

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices. By using component video cables, you bypass the TV's Y/C separator and color decoder, routing the color (Y Pr Pb) information directly into the TV's matrix decoder. By sending the pure DVD component signal directly to a component video input-equipped display device, the DVD signal forgoes the extra processing that normally would degrade the image. Python™ component video cables provide you maximum picture and sound quality compared to ordinary "out of the box" cables.

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality
- Bonded construction design for neat, easy connection of component video and audio



Part No.	Description	1	2	5
228620CR	6' component video RGB cable .....	\$12.35	\$11.15	\$9.99
228638CR	12' component video RGB cable .....	23.75	21.39	19.25
228646CR	25' component video RGB cable .....	33.95	30.59	27.49
229403CR	6' component video RGB and stereo audio cable .....	17.29	15.59	13.99
229411CR	12' component video RGB and stereo audio cable .....	33.25	29.95	26.95
229420CR	25' component video RGB and stereo audio cable .....	47.55	42.79	38.55

## Audio Adapters and Cables

### RCA Audio Adapters

Part No.	Description	1	10	25	100
228283CR	RCA female jack to mono 1/4" male plug .....	\$ .99	\$ .89	\$ .69	\$ .55
228312CR	RCA male plug to 1/4" mono female jack .....	1.25	1.10	.79	.69
228267CR	RCA female to female jack coupler, gold plated .....	.95	.79	.55	.45
159441CR	RCA female to female jack coupler, metal .....	1.15	.99	.87	.65
228259CR	RCA male to male plug adapter .....	1.59	1.25	1.14	.85
228339CR	RCA F jack to 3.5mm mono M plug, gold plated .....	1.49	1.29	1.20	.90
228291CR	RCA F jack to 3.5mm mono M plug, nickel plated .....	1.25	1.09	.89	.75
215458CR	RCA male plug to 3.5mm mono female jack .....	.89	.75	.69	.59

### RCA Y-Cables

196808CR	5' Y-cable 1/8" stereo F jack to (2) RCA M plugs .....	\$ .75	\$ .30	\$ .27	\$ .26
139037CR	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs .....	2.25	1.99	1.79	1.61
228371CR	6' Y-cable (2) RCA M plugs to RCA F jack .....	.99	.89	.80	.72
228355CR	6' Y-cable RCA M plug to (2) RCA F jacks .....	1.29	1.15	1.06	.79
228380CR	6' Y-cable (2) RCA F jacks to 3.5mm stereo plug .....	1.95	1.76	1.59	1.19
215466CR	8' Y-cable RCA M plug to (2) RCA M plugs .....	2.25	2.04	1.84	1.38

### 3.5mm Audio Adapters

\* Prepackaged: 10 pcs. minimum

228275CR	3.5mm stereo female to female jack .....	\$ .55	\$ .49	\$ .44	\$ .365
215440CR	3.5mm mono female jack to 1/4" mono male plug .....	*	.15	.14	.12
196802CR	3.5mm stereo female jack to 1/4" stereo male plug .....	.59	.49	.31	.28
228304CR	3.5mm stereo M plug to (2) 1/4" stereo F jacks .....	2.05	1.85	1.25	1.15
228339CR	3.5mm mono M plug to RCA F jack, gold plated .....	1.49	1.29	1.20	.90
228291CR	3.5mm mono M plug to RCA F jack, nickel plated .....	1.25	1.09	.89	.75
215458CR	3.5mm mono female jack to RCA male plug .....	.89	.75	.69	.59

### 3.5mm Y-Cables

139037CR	5' Y-cable 1/8" stereo M plug to (2) RCA M plugs .....	\$2.25	\$1.99	\$1.79	\$1.61
228398CR	6' Y-cable (2) 3.5mm stereo female jacks to 3.5mm stereo male plugs .....	1.95	1.65	1.35	1.25
228380CR	6' Y-cable (2) RCA F jacks to 3.5mm stereo M plug .....	1.95	1.76	1.59	1.19



## Audio/Video Cables and Adapters

### RCA Cables

Quantity  
**SAVE**

Part No.	Description	1	10	25
215474CR	3' RCA male plug – female jack (gray) .....	\$ .89	\$ .79	\$ .69
228443CR	3' stereo RCA (2) male to (2) male plugs, gold plated .....	1.49	1.39	1.29
183311CR	4' RCA male to male plug (black) .....	.99	.89	.79
206973CR	4' RCA male to male plug (yellow) .....	.99	.89	.79
183302CR	4' RCA (2) male to (2) male plugs (red/black) .....	1.75	1.45	1.35
106374CR	6' RCA male to male plug .....	1.19	1.00	<b>.75</b>
228419CR	6' mono RCA male plug to female jack .....	1.65	1.45	1.25
228486CR	6' RCA stereo (2) male plugs to (2) female jacks .....	1.25	1.15	1.05
228451CR	6' RCA stereo (2) male to (2) male plugs, gold plated .....	1.79	1.69	1.59
228401CR	6' RCA stereo (2) male plugs to 3.5mm stereo male plug ....	1.55	1.39	1.25
236865CR	6' RCA (3) male to (3) male plugs, gold plated .....	2.39	2.07	<b>1.55</b>
184882CR	6' RCA (3) male to (3) male plugs, low loss .....	1.95	1.79	1.59
228427CR	10' RCA female jack to male plug .....	2.35	1.95	1.79
29348CR	10' RCA male to male plug (yellow) .....	1.69	1.44	1.08
228460CR	12' RCA stereo (2) male to (2) male plugs, gold plated ....	2.10	1.89	1.75
225980CR	12' RCA (3) male to (3) male plugs, gold plated .....	4.49	3.89	<b>2.89</b>
225998CR	20' RCA (3) male to (3) male plugs, gold plated .....	7.99	6.79	<b>5.09</b>
228435CR	25' mono RCA male to male plug, nickel plated .....	2.19	2.09	1.99
228478CR	25' RCA stereo (2) male to (2) male plugs, gold plated ....	2.39	2.29	2.19

### 3.5mm Audio Patch Cables

Part No.	Description	1	10	25
228494CR	6' 3.5mm stereo male to male plug .....	\$1.39	\$1.19	\$ .99
228515CR	6' 3.5mm stereo male plug to female jack .....	1.49	1.35	1.25
228507CR	12' 3.5mm stereo male to male plug .....	1.69	1.49	1.29
228523CR	12' 3.5mm stereo male plug to female jack .....	1.65	1.49	1.35



### Video/Audio Patch Cables

Part No.	Description	1	10	25
228216CR	3' stereo video patch cable, gold plated .....	\$1.19	\$1.13	\$1.07
228574CR	25' stereo video patch cable, gold plated .....	6.99	6.29	5.65
228582CR	50' stereo video patch cable, gold plated .....	12.59	11.35	10.19

### VCR Cable

Part No.	Description	1	10	25
228224CR	6' stereo VCR cable .....	\$2.39	\$2.29	\$2.15

## S-VHS Cables and Adapters

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- Applications: home theaters, DSS receivers, Super-VHS VCRs, camcorders, and DVD players

228558CR/228566CR: 95% spiral wound shield S-VHS/audio conductors



Part No.	Description	1	10	25
228591CR	6' S-VHS video cable, gold plated .....	\$2.15	\$1.95	\$1.79
228558CR	6' S-VHS audio-video cable, gold plated .....	12.95	11.65	10.49
228566CR	12' S-VHS audio-video cable, gold plated .....	14.95	13.45	12.15
228603CR	12' S-VHS video cable, gold plated .....	2.65	2.35	2.10
228611CR	25' S-VHS video cable, gold plated .....	4.05	3.85	3.65
229809CR	S-video 4-pin mini DIN female to female jack .....	2.85	2.59	2.29
229391CR	S-video male plug to RCA video female jack .....	5.39	4.85	4.39

## 75Ω "F" Connectors/Adapters/Terminators



Part No.	Product No.	Description	1	10	50	100
295380CR	295398CR	295435CR	295531CR	295451CR		
291531CR	291709CR	291725CR	295371CR			
291581CR	200-016	Perma-seal, RG-59 coax .....	\$ .69	\$ .59	\$ .55	\$ .49
291531CR	200-028	Perma-seal, RG-6 coax .....	.69	.59	.55	.49
291709CR	200-050	F-jack to jack (nickel) .....	.65	.55	.475	.38
291725CR	200-051	F-jack to jack (gold) .....	.95	.85	.79	.75
295371CR	200-053	F-panel mount jack to jack (nickel) .....	.65	.55	.475	.38
295380CR	200-107	F-R/A jack to plug (nickel) .....	1.59	1.39	1.16	.95
295398CR	200-103	F-jack to push-on plug (nickel) .....	.85	.69	.627	.523
295435CR	200-104	F-jack to push-on plug (gold) .....	1.15	.99	.95	.89
295531CR	200-117	F-jack to 3.5mm mono plug (nickel) .....	1.65	1.35	1.13	.93
295451CR	200-075	F-plug terminator .....	.55	.45	.35	.25

## 3.5mm Female Jacks and Male Plugs



- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs

231159CR/231167CR: With spring strain relief

Part No.	Mfr. Cross Ref. No.	Description	1	10	100	1000
109495CR	PJ035PM	Mono F jack, 3.5mm hole size ..	\$ .45	\$ .40	\$ .36	\$ .32
165729CR	PJ0354	Mono F jack, 3.5mm hole size ..	.69	.59	.49	.39
101151CR	PJ1035	Mono male plug, plastic .....	.55	.43	.36	.32
147344CR	PJ1035L	Mono male plug, plastic .....	.55	.43	.36	.32
231159CR	AP-336	Mono male plug, metal .....	1.25	1.19	1.09	.95
231175CR	AP-340	Stereo male plug, plastic .....	.55	.43	.36	.32
231167CR	AP-343	Stereo male plug, metal .....	1.79	1.60	1.45	1.30

## 75Ω "F" Connectors



Part No.	Product No.	Fig.	Description	1	10	50	100
289828CR	200-030	1	RG-59 crimp-on nickel plated ...	\$ .22	\$ .20	\$ .17	\$ .14
289908CR	200-031	1	RG-59 crimp-on gold plated .....	.45	.43	.41	.39
289887CR	200-035	2	RG-6 crimp-on nickel plated .....	.22	.20	.17	.14
289916CR	200-036	2	RG-6 crimp-on gold plated .....	.45	.43	.41	.39
290001CR	200-039	3	RG-6 twist-on nickel plated .....	.79	.69	.45	.32
289975CR	200-040	3	RG-59 twist-on nickel plated .....	.79	.69	.45	.32
289924CR	200-038	4	RG-6 crimp-on weatherproof seal ...	.69	.59	.49	.39

See page 245 for more **NEW** Perma Seal RCA/BNC Connectors and RG-59/RG-6 75Ω Patch Cables.

Switchcraft is a leading supplier and manufacturer of electronic and electromechanical components for the audio, video, telecommunication, computer, medical, military, appliance, transportation and instrumentation industries. Their components include jacks, connectors, jack panels, plugs, jackfields, patch cords, power plugs, switches, EAC power receptacles and molded cable assemblies.

## Switchcraft®

### Microphone (XLR) Connectors



Fig. 1

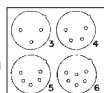


Fig. 2



Fig. 3



Fig. 4

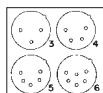


Fig. 5



Fig. 6



Fig. 7

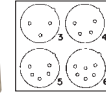
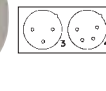


Fig. 8



Side View



Front View

Fig. 9

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
277026CR	A3F ▲	1	3-pin female, metal	82.5mm x 5.3mmDia. ....	\$4.49	\$3.99	\$3.58	\$3.26
277034CR	A3FB ▲	2	3-pin female, black	82.0mm x 5.3mmDia. ....	5.19	3.99	3.65	3.33
281560CR	A3M ▲	3	3-pin male, metal	70.3mm x 5.3mmDia. ....	3.79	3.17	2.83	2.58
281578CR	A3MB ▲	4	3-pin male, black	70.3mm x 6.1mmDia. ....	4.59	3.53	3.24	2.95
297422CR	C3F	7	3-pin female, metal, panel mount	36.9mm x 36.5mmDia. ....	7.85	7.04	6.22	5.63
297431CR	C3M	8	3-pin male, metal, panel mount	30.2mm x 36.3mmDia. ....	5.65	4.28	3.97	3.97
281640CR	D3F ▲	5	3-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	5.89	4.50	4.13	3.75
281658CR	D3M ▲	6	3-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	4.35	3.33	3.06	2.78
281720CR	J3FS ▲	9	3-pin female, wall plate	69.9mmW x 114.3mmH ....	23.19	20.88	18.79	16.82
281586CR	A4F ▲	1	4-pin female, metal	82.0mm x 5.5mmDia. ....	7.25	5.56	5.09	4.64
281594CR	A4M ▲	3	4-pin male, metal	71.2mm x 4.8mmDia. ....	4.59	4.08	3.68	3.32
297449CR	C4F	7	4-pin female, metal, panel mount	36.9mm x 36.5mmDia. ....	12.15	9.11	8.35	7.97
297457CR	C4M	8	4-pin male, metal, panel mount	30.2mm x 36.3mmDia. ....	7.19	5.48	5.02	4.82
281666CR	D4F ▲	5	4-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	8.35	6.38	5.85	5.32
281674CR	D4M ▲	6	4-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	5.19	3.96	3.63	3.31
281607CR	A5F ▲	1	5-pin female, metal	82.0mm x 4.7mmDia. ....	12.09	9.06	8.31	7.55
281615CR	A5M ▲	3	5-pin male, metal	70.2mm x 5.3mmDia. ....	9.35	7.18	6.58	5.92
281682CR	D5F ▲	5	5-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	13.39	10.32	9.46	8.55
281691CR	D5M ▲	6	5-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	9.25	7.01	6.43	5.84
281623CR	A6F ▲	1	6-pin female, metal	80.2mm x 4.6mmDia. ....	10.79	10.25	9.45	8.32
281631CR	A6M ▲	3	6-pin male, metal	70.5mm x 4.5mmDia. ....	9.55	8.78	8.15	7.51
281703CR	D6F ▲	5	6-pin female, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	18.95	14.19	13.02	11.83
281711CR	D6M ▲	6	6-pin male, metal, panel mount	27mmW x 36.3mmH x 30.6mmD	12.35	11.80	9.49	8.30

## Switchcraft®

### DIN Connectors

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
296948CR	61HA5F	10	5-pin DIN receptacle, panel mount	20mm x 17mmDia. ....	\$3.29	\$2.65	\$2.43	\$2.35
296876CR	05BL5M	11	5-pin DIN plug, metal	59.2mm x 13.6mmDia. ....	4.29	3.94	3.51	3.34
296884CR	05GM5M	12	5-pin DIN plug, black plastic	63.3mm x 13.6mmDia. ....	4.55	3.72	3.28	3.12



Fig. 10



Fig. 11



Fig. 12

## Switchcraft®

### RCA Plugs and Jacks

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281826CR	3503 ▲	13	RCA phono audio jack, metal	43.2mm x 7.6mm ID ....	\$2.59	\$1.97	\$1.81	\$1.64
281818CR	3502A ▲	14	RCA phono audio plug, nickel	42.4mm x 7.3mm ID ....	1.85	1.66	1.54	1.40
281800CR	3502 ▲	15	RCA mono phono audio plug, metal	33.8mmL x 5.0mm ID ....	1.75	1.37	1.21	1.10
281797CR	3501FP ▲	16	RCA phono audio jack, metal	16.3mm x 6.0mm Dia. ....	1.29	1.00	.91	.84



Fig. 13



Fig. 14



Fig. 15



Fig. 16

## Switchcraft®

### Power Plugs and Jacks

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281842CR	712A ▲	17	2.1mm DC power jack, panel mount	15.8mm x 7.5mm Dia. ....	\$2.05	\$1.88	\$1.76	\$1.65
281851CR	722A ▲	17	2.5mm DC power jack, panel mount	15.1mm x 7.5mm Dia. ....	2.09	1.94	1.75	1.65
297588CR	RAPC722	19	2.0mm x 5.5mm DC pwr. jack, RA	—	.85	.77	.71	.68
297561CR	PC722A	18	2.0mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia. ....	2.35	2.09	1.93	1.93
297570CR	RAPC712	19	2.5mm x 5.5mm DC pwr. jack, RA	—	.86	.77	.71	.68
297553CR	PC712A	18	2.5mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia. ....	2.09	1.94	1.90	1.90
297529CR	L712A	20	2.5mm x 5.5mm DC power jack, metal	23.3mm x 11.0mm Dia. ....	3.75	2.85	2.64	2.64
281877CR	760 ▲	21	2.5mm x 5.5mm DC power plug, plastic	9.6mm x 36.3mm x 5.7mm Dia. ...	2.15	1.94	1.76	1.59
297617CR	S760	21	2.5mm x 5.5mm DC power plug, plastic	25.4mm x 9.5mm Dia. ....	1.99	1.94	1.80	1.67
297289CR	761K	22	2.5mm x 5.5mm DC power plug, plastic	25.4mm x 9.5mm Dia. ....	3.99	3.03	2.81	2.81



Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21

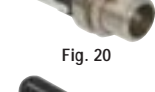


Fig. 22



## Switchcraft®

## Audio Plugs and Jacks



Fig. 23



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 32



Fig. 33



Fig. 34

Part No.	Product No.	Fig.	Description	Dimensions	1	10	25	100
281885CR	780 ▲	23	3.5mm mono audio plug, metal	14.1mm x 41.1mm x 5.3mm ID	\$3.89	\$2.94	\$2.69	\$2.45
281869CR	750 ▲	24	3.5mm mono audio plug, plastic	14.0mm x 41.5mm x 5.7mm ID	2.49	2.17	1.99	1.81
281834CR	41 ▲	26	3.5mm audio jack	7.8mm x 5.9mm	1.29	1.22	1.07	1.02
297019CR	125	25	3.5mm mono jack, metal	31.75mm x 10.3mmDia.	5.19	4.54	4.08	4.01
297035CR	142A	27	3.5mm mono jack, plastic	21.03mmL x 9.52mmW x 12.7mmH	2.19	2.04	1.93	1.83
297297CR	850	28	2.5mm mono phono audio plug, plastic	25.8mm x 6.35mmDia.	2.59	2.28	2.12	2.12
297625CR	TR2A	29	2.5mm mono audio jack, metal	12.6mm	2.09	1.94	1.72	1.72
281789CR	297 ▲	30	1/4" stereo phone audio plug, metal	73.7mm x 7.6mm ID	4.59	3.82	3.19	2.91
281771CR	280 ▲	31	1/4" mono phone audio plug, metal	73.7mm x 7.6mm ID	3.15	2.82	2.58	2.36
281762CR	267 ▲	32	1/4" stereo phone audio plug, plastic	73.7mm x 7.6mm ID	4.25	3.22	2.95	2.69
281754CR	250 ▲	33	1/4" mono phone audio plug, plastic	73.7mm x 7.6mm ID	2.55	2.39	2.13	1.94
281746CR	12B ▲	34	1/4" stereo phone audio jack	14.7mm x 9.1mmDia.	1.49	1.39	1.32	1.24
281738CR	11 ▲	35	1/4" mono phone audio jack	12.8mm x 9.1mmDia.	1.39	1.29	1.19	1.15
296892CR	12A	34	1/4" mono phono audio jack, metal	—	1.79	1.43	1.33	1.33
296905CR	13B	34	1/4" mono phono audio jack, metal	—	4.15	3.76	3.37	3.37
296930CR	42A	34	1/4" mono phono audio jack, metal	15.9mm x 12.7mmDia.	1.75	1.60	1.52	1.48
296956CR	70	31	1/4" mono phono audio plug, metal	—	6.79	5.48	4.93	4.44
297001CR	121	36	1/4" mono phono audio jack, metal	63.5mm x 12.7mmDia.	7.15	5.87	5.22	4.74
297043CR	151	37	1/4" mono phono audio jack, metal	57.15mm x 15.87mmDia.	5.99	4.65	4.30	4.30
297060CR	170	38	1/4" mono phono audio jack, metal	69.4mm x 17.46mm Dia.	7.89	5.99	5.58	5.32
297107CR	226	39	1/4" mono phono audio jack, RA, metal	46.4mm x 15.9mmDia.	3.89	3.70	3.23	2.93
296913CR	14B	34	1/4" stereo phono audio jack, metal	—	4.19	3.81	3.42	3.42
297051CR	152B	37	1/4" stereo phono audio jack, metal	57.15mm x 15.87mmDia.	5.75	5.11	4.74	4.74
297158CR	290	40	1/4" stereo phono audio jack, metal	42.9mm x 12.7mmDia.	6.19	4.78	4.38	4.38
297123CR	236	39	1/4" stereo phono audio jack, RA, metal	46.4mm x 15.9mmDia.	4.89	4.83	4.43	4.11
297140CR	238	41	1/4" stereo phono audio jack, RA, metal	41.28mm x 19.84mmDia.	5.55	4.19	3.90	3.90
296972CR	111	43	1/4" mono phono audio jack, plastic	34.8mm x 15.87mmDia.	1.45	1.31	1.25	1.21
297537CR	N111	43	1/4" mono phono audio jack, plastic	34.8mm x 15.87mmDia.	1.69	1.54	1.47	1.43
302543CR	240	33	1/4" mono phono audio jack, black	—	2.99	2.72	2.59	2.55
297115CR	228	42	1/4" mono phono audio jack, RA, metal	42.1mm x 25.4mmDia.	4.25	3.25	3.02	3.02
296981CR	112B	43	1/4" phono audio jack, 3C, plastic	34.8mm x 15.87mmDia.	1.45	1.31	1.25	1.21
297027CR	131	36	1/4" phono audio jack, 3C, plastic	63.5mm x 12.7mmDia.	10.49	7.82	6.88	6.43
297271CR	515	44	1/4" jack cover	—	7.15	5.48	5.08	5.08



Fig. 35



Fig. 36



Fig. 37



Fig. 38



Fig. 39



Fig. 40



Fig. 41



Fig. 42



Fig. 43



Fig. 44

## RCA Plugs

- High-quality plastic and metal housing RCA plugs



**Gold plated metal housing w/ spring strain relief for 6.7mm cables**

Part No.	Description	1	10	25	100
229876CR	Black	\$1.89	\$1.69	\$1.55	\$1.39
229868CR	Red	1.89	1.69	1.55	1.39
229884CR	White	1.89	1.69	1.55	1.39
230287CR	Yellow	1.89	1.69	1.55	1.39

**Plastic screw-on cover w/ integral cable protection**

229921CR	Black (5 pk)	\$1.15	\$1.05	.91	.85
229930CR	Red (5 pk)	1.15	1.05	.91	.85
229913CR	White (5 pk)	1.19	1.09	.95	.89
229892CR	Yellow (5 pk)	1.19	1.09	.95	.89

## RCA Jacks

- Standard RCA jacks for audio and video signals
- P/N 237016CR: 2x3 grid; † Red/white/yellow

Part No.	Dimensions	Color	1	10	100	1000
237016CR	2.0"W x .45"D x 1.1"H	†	\$0.89	\$0.79	\$0.69	\$0.65
220581CR	.44"W x .56"D x .48"H	Wht	.45	.31	.28	.22
220556CR	.44"W x .56"D x .48"H	Red	.45	.31	.28	.22
220572CR	.44"W x .56"D x .48"H	Blk	.45	.31	.28	.22
220564CR	.44"W x .56"D x .48"H	Yel	.45	.31	.28	.22
112475CR	.44"W x .58"D x .48"H	Red	.39	.35	.31	.19
169501CR	.40"W x .85"D x .50"H	Blk	.39	.35	.32	.26
159484CR	.84"W x .38"H	Blk	.49	.39	.33	.24
172339CR	.84"W x .38"H	Red	.49	.39	.31	.23



237016CR



220581CR



220556CR



220572CR



220564CR



112475CR



169501CR



159484CR



172339CR

## 30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 239.

# D-Sub Connectors and Contacts

Color Code Legend  
New Sale Qty. Save

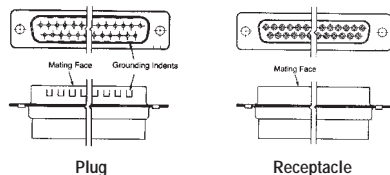
## AMP

### D-Subminiature Connectors

- Dielectric withstanding voltage: 1000VAC (one minute)
- Nylon, flame retardant, 94V-0 rated, glass filled
- Low-cost, high-performance, precision formed crimp contacts
- Standard mounting method with 0.120" diameter mounting holes
- Insulation resistance: 5000MΩ
- UL/CSA recognized and certified

#### Crimp-Type Contacts

- Current rating: 1.2A to 3.7A
- Intermateable with any size 20 D-sub dimensionally complying with MIL-C-24308
- Crimp snap-in contacts allows loading of only the number of contacts being used



#### Zinc-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222640CR	205204-1	9	Plug .....	\$ .95	\$ .85	\$ .63
222658CR	205206-1	15	Plug .....	1.39	1.24	.92
222666CR	205208-1	25	Plug .....	1.05	.92	.82
222674CR	205210-1	37	Plug .....	1.69	1.49	1.10
222682CR	205212-1	50	Plug .....	2.10	1.79	1.35
222691CR	205203-1	9	Receptacle	1.10	.99	.77
222703CR	205205-1	15	Receptacle	1.25	1.10	.82
222711CR	205207-1	25	Receptacle	1.05	.95	.71
222720CR	205209-1	37	Receptacle	1.69	1.49	1.10
222738CR	205211-1	50	Receptacle	2.10	1.79	1.69

#### Tin-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222754CR	205204-3	9	Plug .....	\$1.29	\$1.15	\$ .85
222762CR	205206-2	15	Plug .....	1.49	1.29	.95
222771CR	207464-1	25	Plug .....	.94	.80	.61
222789CR	205210-2	37	Plug .....	1.69	1.49	1.10
222797CR	205204-4	9	Plug* .....	.83	.75	.55
222800CR	205206-3	15	Plug* .....	.99	.89	.65
222818CR	207464-2	25	Plug* .....	.88	.78	.58
222826CR	205210-3	37	Plug* .....	1.68	1.49	1.12
222834CR	205212-3	50	Plug* .....	1.79	1.59	1.19
222842CR	205203-3	9	Receptacle	.69	.59	.52
222914CR	205205-2	15	Receptacle	.88	.78	.58
222922CR	207463-1	25	Receptacle	.99	.89	.68
222931CR	205209-2	37	Receptacle	1.19	1.05	.78
222949CR	205211-2	50	Receptacle	2.10	1.79	1.35

\* With grounding indents

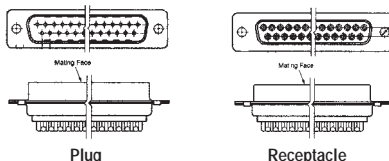
### D-Sub Pin Insertion/Extraction Tools

19094CR/223335CR: Plastic body; metal tips  
223327CR: Handle with .050" hex wrench & exchangeable tips

Part No.	Description	1	10	100
19094CR	Red/white plastic body	\$2.79	\$2.49	\$2.15
223335CR	AMP# 91067-2 .....	4.45	3.95	3.75
223327CR	AMP# 91285-1 .....	19.99	18.99	17.99

#### Solder-Cup Contacts

- Current rating: 1.2A to 3.0A
- Intermateable with other D-sub connectors
- One-piece 94V-0 rated plastic insert
- Preloaded duplex-plated solder-cup contacts
- Shields offer full EMI shielding and ESD insulation
- Anti-solderwicking contact design

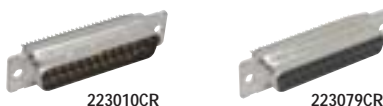


#### Zinc-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222957CR	747904-4	9	Plug .....	\$1.89	\$1.59	\$1.32
222965CR	747908-4	15	Plug .....	2.65	2.19	1.75
222973CR	747912-4	25	Plug .....	3.69	3.10	2.49
222981CR	747916-4	37	Plug .....	5.45	4.56	3.79
223036CR	747905-4	9	Receptacle	2.65	2.23	1.76
223044CR	747913-4	25	Receptacle	4.75	3.99	3.19

#### Tin-Plated Shell



Part No.	Product No.	Cont.	Description	1	10	100
222990CR	747904-2	9	Plug .....	\$1.69	\$1.55	\$1.15
223001CR	747908-2	15	Plug .....	2.79	2.49	1.85
223010CR	747912-2	25	Plug .....	3.29	2.95	2.19
223028CR	747916-2	37	Plug .....	5.29	4.29	3.49
223052CR	747905-2	9	Receptacle	2.35	2.09	1.55
223061CR	747909-2	15	Receptacle	3.45	2.99	2.19
223079CR	747913-2	25	Receptacle	4.10	3.69	2.72
223087CR	747917-2	37	Receptacle	6.65	5.69	4.19

## AMP Plastic Hoods for D-Sub Connectors

- Cable clamp type: clam shell
- Cable exit angle: straight
- Standard clam shell length
- Body material, cable support gate, and cable clamp: thermoplastic
- Screw material: steel
- Screw plating: zinc

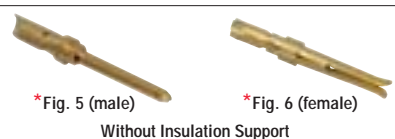
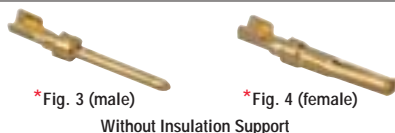


Part No.	Product No.	Positions	1	10	100
230893CR	205729-1	9 .....	\$2.25	\$1.85	\$1.46
230906CR	205730-1	15 .....	2.34	2.10	1.85
230914CR	205718-1	25 .....	2.05	1.69	1.32
230922CR	205731-1	37 .....	2.88	2.63	2.29
230931CR	205732-1	50 .....	3.21	2.65	2.19

## AMP

### D-Sub Contacts

- Pin material: brass; socket material: phosphor bronze
- Contact plating
- \*A: Select – gold flash over nickel on entire contact, with additional gold (.000030) on mating end;
- \*B: Duplex – gold (.000030) on mating end, tin-lead on termination end, with entire contact nickel underplated;
- \*C: gold flash over nickel on entire contact;
- \*D: gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated
- For use with AMP D-sub connectors (see left)
- Prepackaged: order in increments of 10, 100 or 1000



#### Male Crimp Contacts

Part No.	Product No.	Desc.*	AWG	10	100	1000
223095CR	1-66507-0	1C	28-24 ...	\$ .24	\$ .17	\$ .12
223124CR	66682-4	1A	28-24 .....	.22	.16	.14
223108CR	66507-9	1A	28-24 .....	.18	.12	.09
223132CR	745254-7	1C	26-22 .....	.25	.18	.128
223141CR	745254-6	1A	26-22 .....	.25	.20	.15
223159CR	1-745254-6	1B	26-22 .....	.25	.18	.13
223167CR	1-66506-0	1C	24-20 .....	.16	.15	.12
223175CR	205202-7	3C	24-20 .....	.24	.17	.14
223183CR	5-66506-9	1D	24-20 .....	.21	.15	.13
223191CR	66506-9	1A	24-20 .....	.16	.15	.10
223204CR	5-66506-7	1B	24-20 .....	.24	.17	.12
223212CR	745229-4	3A	22-18 .....	.26	.24	.19

#### Female Crimp Contacts

Part No.	Product No.	Desc.*	AWG	10	100	1000
223221CR	1-66505-0	2C	28-24 ...	\$ .18	\$ .12	\$ .09
223239CR	66683-4	2A	28-24 .....	.19	.17	.15
223247CR	745253-6	2A	26-22 .....	.27	.20	.14
223255CR	1-66504-0	2C	24-20 .....	.17	.15	.11
223263CR	205201-7	4C	24-20 .....	.26	.214	.16
223271CR	5-66504-7	2D	24-20 .....	.16	.12	.10
223280CR	205201-5	4A	24-20 .....	.18	.147	.11
223298CR	66504-9	2A	24-20 .....	.17	.15	.13
223301CR	6-66504-0	2B	24-20 .....	.26	.214	.16

#### Male Solder Contact

Part No.	Product No.	Desc.*	AWG	10	100	1000
234982CR	66570-3	5A	28-24 ...	\$ .22	\$ .12	\$ .11

#### Female Solder Contact

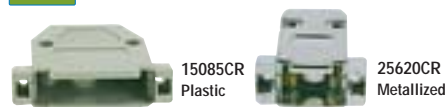
Part No.	Product No.	Desc.*	AWG	10	100	1000
223319CR	66569-3	6A	18 (max.)	\$ .225	\$ .18	\$ .162

## Corporate Customers

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## D-Sub Connector Hoods



- Use with D-sub solder cup and housing style connectors (hardware included)

D Series: plastic hood with strain relief (gray)

MD Series: metal coated plastic hood w/ strain relief

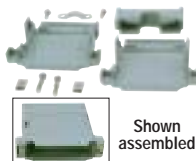
MH Series: die-cast metal hood with strain relief

Part No.	Mfr. Cross Ref. No.	Connector	1	10	100	1000
15721CR	DB9H	9-pin ..... 1	\$.49	\$.45	\$.39	\$.35
25620CR	MDB9H	9-pin ..... 1	.59	.49	.39	.35
147740CR	MHDB9	9-pin ..... 1	1.45	1.29	1.15	.99
15018CR	DA15H	15-pin ..... 1	.49	.45	.40	.35
25566CR	MDA15H	15-pin ..... 1	.56	.44	.36	.31
15085CR	DB25H	25-pin ..... 1	.45	.39	.35	.32
25603CR	MDB25H	25-pin ..... 1	.59	.49	.42	.35
15106CR	MHDB25	25-pin ..... 1	1.39	1.19	1.09	.89
15456CR	DC37H	37-pin ..... 1	.59	.55	.45	.39
25611CR	MDC37H	37-pin ..... 1	.75	.69	.59	.53
15659CR	DD50H	50-pin ..... 1	.99	.85	.75	.65



## 25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



Part No.	Description	1	10	100	500
34091CR	25-pin, plastic dual ..	\$.95	\$.85	\$.75	\$.59

## 4-40 Screw Hardware for D-Subminiature Connectors

### 4-40 x .187" Jack Screws and Standoffs



Part No.	Description	1	10	100	1000
108986CR	.252"L jack screw .....	*	\$.21	\$.12	\$.08
169931CR	.275"L jack screw .....	*	.15	.13	.11
172603CR	.315"L jack screw .....	*	.14	.11	.08
102816CR	.435"L jack screw .....	.49	.46	.41	.37
108986CR	.515"L jack screw .....	.55	.50	.45	.40
125014CR	4-40 x 1.65"L plastic beige thumbscrew .....	.39	.35	.28	.20
175636CR	.187"L standoff .....	*	.15	.13	.09
102795CR	.236"L (6mm) standoff ..	*	.21	.15	.10

### 4-40 Screw Sets



102808CR: 4-40 screw (.30"L) and retainer set  
16547CR: 4-40 x .187" jack screw (.31"L thread), washer, lock washer, and nut set

- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
102808CR	Screw/retainer set .....	\$.39	\$.35	\$.30
16547CR	Screw/nut set .....	.31	.25	.17



## D-Subminiature Connectors

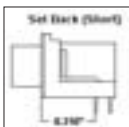
- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)

- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT



### Right Angle PC Mount

#### .318" Set Back



- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A

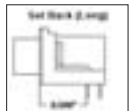


Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100	500
104942CR	DB9P318	9	M	\$.55	\$.50	\$.45	\$.38
104951CR	DB9S318	9	F	..60	.55	.49	.45
71124CR	DA15P318	15	M	..69	.59	.55	.49
77956CR	DA15S318	15	F	..79	.69	.65	.45
168743CR	HDDB15S318*	15	M	..49	.42	.34	.31
71466CR	HDDB15S318*	15	F	..59	.53	.42	.31
15149CR	DB25P318	25	M	..79	.65	.55	.45
15181CR	DB25S318	25	F	..89	.79	.72	.65
265439CR	DSUB-25F	25	F	..85	.73	.62	.48
71706CR	DC37P318	37	M	..99	.89	.71	.53
78182CR	DC37S318	37	F	1.15	.95	.69	.49

\* High Density



### .590" Set Back



- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Shell: metal
- Long style



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
104969CR	DB9P590	9	M	\$.99	\$.83	\$.72
104977CR	DB9S590	9	F	..89	.79	.75
104993CR	DA15S590	15	F	..99	.85	.59
105005CR	DB25P590	25	M	..99	.89	.79
105013CR	DB25S590	25	F	1.25	1.12	.99

**Special Limited Offers from Other Manufacturers**

189624CR	DB25P590†	25	M	\$.44	\$.405	\$.351
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† Without board tabs



### IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Insulation material: glass-filled polyester
- Temp range: -55°C to +120°C
- Contact material: phosphor bronze
- Terminates with standard D-type connectors
- Shell: MD: metal; CD: plastic (see mfr. cross ref. no.)



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
109225CR	MDB9P†	9	M	\$1.35	\$1.25	\$1.09
12503CR	CDB9P	9	M	2.49	1.79	1.59
109217CR	MDB9S†	9	F	1.49	1.19	1.05
12520CR	CDB9S	9	F	2.59	2.35	2.09
117381CR	MDA15P	15	M	1.55	1.25	.69
12298CR	CDA15P	15	M	1.55	1.25	.75
116011CR	MDA15S	15	F	1.55	1.25	.85
12319CR	CDA15S	15	F	1.69	1.35	.79
115983CR	MDB25P	25	M	1.85	1.69	1.45
12335CR	CDB25P	25	M	1.89	1.69	1.29
115975CR	MDB25S	25	F	1.85	1.65	1.39
12431CR	CDB25S	25	F	1.95	1.79	1.39
115991CR	MDC37P	37	M	2.39	2.15	1.55
12466CR	CDC37P	37	M	3.09	2.79	2.49
116003CR	MDC37S	37	F	2.95	2.69	2.42
12482CR	CDC37S	37	F	3.49	2.99	2.25

† Require flat cable w/ .0625" centers



### Crimp-Type Connectors & Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99442CR, pg 204 to crimp 43377CR, 43369CR



\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
73189CR	DB9 M housing .....	\$.49	\$.39	\$.31	\$.19
73197CR	DB9 F housing .....	.49	.39	.31	.19
73200CR	DA15 M housing .....	.59	.53	.48	.43
73218CR	DA15 F housing .....	.62	.59	.47	.35
180881CR	HDDB15 M housing*	1.09	.98	.78	.58
180890CR	HDDB15 F housing*	.89	.79	.72	.65
38789CR	DB25 M housing .....	.56	.44	.36	.21
38771CR	DB25 F housing .....	.55	.44	.31	.21
43377CR	M crimp pin .....	*	.10	.09	.08
43369CR	F crimp pin .....	*	.08	.07	.06
185421CR	M crimp pin (180881CR) ..	*	.055	.045	.04
185412CR	F crimp pin (180890CR) ..	*	.055	.05	.04
19094CR	Insert/extract. tool for above pins (HT101) .....	2.79	2.49	2.15	2.15

\* High Density



### Solder-Cup Connectors



- Compatible with 24 AWG communications and 22 AWG solid cable, pg 70
- Shell: metal

Part No.	Contacts	Gender	1	10	100	1000
15747CR	9	M	\$.56	\$.44	\$.36	\$.24
15771CR	9	F	..59	.49	.44	.31
15077CR	15HD*	M	..69	.59	.49	.31
164822CR	15HD*	F	.79	.69	.59	.39
15034CR	15	M	..55	.49	.42	.29
15051CR	15	F	..59	.49	.39	.24
15114CR	25	M	..99	.89	.79	.71
203799CR	26HD*	M	..65	.58	.52	.52
203781CR	26HD*	F	.75	.68	.61	.61
15472CR	37	M	..99	.85	.79	.49
15499CR	37	F	1.19	1.05	.85	.49
15675CR	50	M	1.65	1.49	1.35	.99
15691CR	50	F	1.79	1.39	1.32	1.19

\* High Density

**Special Limited Offers from Other Manufacturers**

15157CR	25	F	\$.79	\$.72	\$.62	\$.55
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### Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temperature: -65°F to +250°F
- Shell: metal



Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100
111691CR	DB9PPCB	9	M	\$.55	\$.45	\$.32
15780CR	DB9SPCB	9	F	..55	.45	.32
176760CR	DA15PPCB	15	M	..49	.42	.31
176751CR	DA15SPCB	15	F	..49	.42	.31
15122CR	DB25PCB	25	M	..65	.59	.52
15165CR	DB25PCB	25	F	..74	.67	.39
180021CR	DC37PCB	37	F	..85	.72	.54



## .062" (1.57mm) Power Connectors

- Passive friction lock
- Polarized housing assures proper mating
- Voltage: 250V • Current: 5.0A
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

### Plugs



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224477CR	03-06-2011*	1	\$.29	\$.16	\$.13
224485CR	03-06-2023*	2	.30	.18	.15
224493CR	03-06-2032*	3	.31	.19	.16
224506CR	03-06-2042*	4	.39	.27	.24
224514CR	03-06-2044**	4	.39	.27	.24
230244CR	03-06-2055*	5	.47	.26	.24
224522CR	03-06-2061**	6	.45	.28	.25
224531CR	03-06-2092**	9	.49	.27	.24
224549CR	03-06-2122**	12	.52	.30	.25

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
229948CR	03-06-2024*	2	\$.30	\$.17	\$.14
229964CR	03-06-2033*	3	.35	.18	.15
229981CR	03-06-2041*	4	.47	.27	.24
230009CR	03-06-2043**	4	.47	.26	.24
230025CR	03-06-2054*	5	.47	.26	.24
230041CR	03-06-2062**	6	.47	.26	.24
230068CR	03-06-2091**	9	.47	.26	.24
230084CR	03-06-2121**	12	.55	.29	.26

\*In-line \*\*Grid

### Receptacles



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224397CR	03-06-1011*	1	\$.29	\$.16	\$.13
224400CR	03-06-1023*	2	.30	.18	.15
224418CR	03-06-1032*	3	.31	.19	.16
224426CR	03-06-1042*	4	.39	.27	.24
224434CR	03-06-1044**	4	.39	.27	.24
230252CR	03-06-1056*	5	.55	.35	.31
224442CR	03-06-1062**	6	.45	.28	.25
224451CR	03-06-1092**	9	.49	.27	.24
224469CR	03-06-1122**	12	.52	.30	.25

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
229956CR	03-06-1022*	2	\$.31	\$.16	\$.14
229972CR	03-06-1038*	3	.32	.17	.15
229999CR	03-06-1041*	4	.49	.26	.23
230017CR	03-06-1043**	4	.49	.26	.23
230033CR	03-06-1055*	5	.59	.49	.36
230050CR	03-06-1061**	6	.47	.26	.23
230076CR	03-06-1091**	9	.47	.26	.23
230092CR	03-06-1121**	12	.49	.33	.30

\*In-line \*\*Grid

## .093" (2.36mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Current: 12A per circuit
- Dielectric withstanding voltage: 1500VAC<sub>RMS</sub>
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

### Plugs



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224063CR	03-09-2011*	1	\$.29	\$.18	\$.12
224071CR	03-09-2022*	2	.30	.25	.18
224080CR	03-09-2032*	3	.41	.32	.21
224098CR	03-09-2042*	4	.45	.22	.20
229825CR	03-09-2049**	4	.45	.34	.26
230261CR	03-09-2057*	5	.55	.29	.26
224101CR	03-09-2062**	6	.49	.39	.29
224119CR	03-09-2092**	9	.55	.35	.30
224127CR	03-09-2121**	12	.69	.59	.39

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230105CR	03-09-2021*	2	\$.35	\$.18	\$.16
230121CR	03-09-2031*	3	.42	.22	.20
230148CR	03-09-2041*	4	.42	.22	.20
230164CR	03-09-2040**	4	.64	.59	.35
230181CR	03-09-2061**	6	.35	.33	.25
230201CR	03-09-2091**	9	.65	.35	.31
230228CR	03-09-2122**	12	.71	.38	.35

\*In-line \*\*Grid

### Receptacles



### Without Mounting Ears

Part No.	Product No.	Circuits	1	10	100
224135CR	03-09-1011*	1	\$.29	\$.09	\$.08
224143CR	03-09-1022*	2	.30	.25	.18
224151CR	03-09-1032*	3	.44	.25	.16
224160CR	03-09-1042*	4	.46	.25	.22
229817CR	03-09-1049**	4	.46	.33	.25
230279CR	03-09-1057*	5	.59	.49	.32
224178CR	03-09-1064**	6	.49	.23	.20
224186CR	03-09-1094**	9	.69	.59	.39
224194CR	03-09-1126**	12	.75	.49	.39

\*In-line \*\*Grid

### With Mounting Ears

Part No.	Product No.	Circuits	1	10	100
230113CR	03-09-1027*	2	\$.35	\$.17	\$.15
230130CR	03-09-1081*	3	.48	.24	.22
230156CR	03-09-1041*	4	.40	.23	.17
230172CR	03-09-1040**	4	.48	.25	.23
230199CR	03-09-1061**	6	.49	.26	.25
230210CR	03-09-1091**	9	.62	.33	.30
230236CR	03-09-1125**	12	.62	.33	.30

\*In-line \*\*Grid

## .062" (1.57mm) Contacts

- Durability: tin – 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

### Crimp-Type Contacts



Part No.	Product No.	Gender	AWG	10	100	1000
224565CR	02-06-2103	M	18-24 ...	\$.18	\$.057	\$.038
224581CR	02-06-2132	M	24-30	.18	.057	.038
224557CR	02-06-1103	F	18-24	.18	.057	.038
224573CR	02-06-1132	F	24-30	.18	.057	.038

### Solder-Tail Contacts



Part No.	Product No.	Gender	10	100	1000
227379CR	02-06-8103	Male	\$.18	\$.11	\$.066
227387CR	02-06-7103	Female	.18	.11	.066

## .093" (2.36mm) Contacts

- Durability: tin – 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

### Crimp-Type Contacts



Part No.	Product No.	Gender	AWG	10	100	1000
224207CR	02-09-2118	M	18-22	\$.19	\$.06	\$.04
224223CR	02-09-2103	M	14-20	.18	.059	.04
224215CR	02-09-1119	F	18-22	.20	.07	.04
224231CR	02-09-1104	F	14-20	.18	.059	.04

### Solder-Tail Contacts

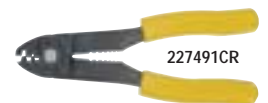


Part No.	Product No.	Gender	10	100	1000
224240CR	02-09-2133	Male	\$.149	\$.129	\$.091
224258CR	02-09-1134	Female	.20	.14	.09

GC/Waldom

## Hand Crimp Tools

This tool is designed to crimp terminals, strip and cut wires, and cut bolts. For Molex crimp pin terminals with .062", .093" diameters and KK® series on opposite page.



308030CR: Cuts & strips 14-24 AWG wires  
227491CR: Cuts & strips 18-30 AWG wires

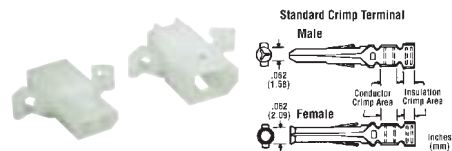
Part No.	Product No.	Length	Color	1	5
308030CR	W-HT-1919	8.3"L	Red	\$.14.99	\$13.99
227491CR	W-HT-1921	8.3"L	Yellow	14.99	13.99

## Molex .062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.

- Voltage: 250VAC • Current: 5A
- Temperature range: -40°C to +105°C

**Includes:** 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male contacts and 8 ea. female contacts.



Part No.	Product No.	Description	1	10	50
142113CR	1625-2	Kit	\$5.69	\$5.15	\$4.59

## Molex .093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.

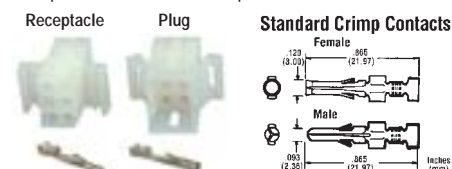
- Voltage: 250VAC
- Temperature range: -40°C to +105°C

**142181CR:** • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male contacts • Current: 12A

**142201CR:** • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male contacts • Current: 9A

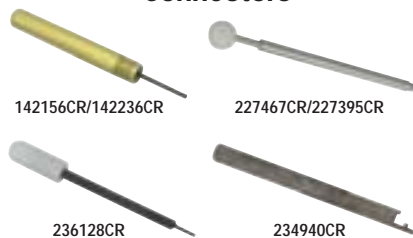
**142228CR:** • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male contacts • Current: 9A

**Includes:** Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire



Part No.	Product No.	Description	1	10	50
142181CR	1545	2-pin kit	\$4.95	\$4.49	\$3.95
142201CR	1490	4-pin kit	5.69	5.15	4.65
142228CR	1261	6-pin kit	5.25	4.75	3.95

## Extraction Tools for Molex Connectors



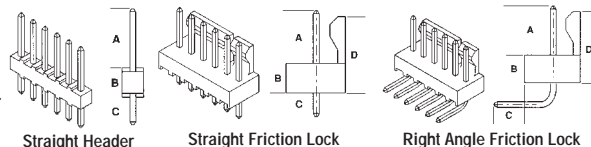
**142156CR/227467CR:** For .062" power connectors  
**142236CR/227395CR:** For .093" power connectors  
**236128CR/234940CR:** For .100" KK® series housing

Part No.	Product No.	AWG	1	10
142156CR	W-HT-2285	18-30	\$14.49	\$13.49
227467CR	W-HT-2023	18-30	11.99	10.99
142236CR	W-HT-2038	14-30	14.49	13.49
227395CR	W-HT-2054	14-30	11.99	10.99
236128CR	W-HT-1884	22-30	9.99	8.99
234940CR	11-03-0022	22-30	14.99	12.99

Find more products on our website.  
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## Molex KK® Series .100" (2.54mm) Male Headers

- Voltage: 250V • Current: 4.0A
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 50,000MΩ min.
- Housing: nylon, UL94V-0
- Contact: brass, 0 – 6.4mm (0.25") square
- Durability: tin – 25 cycles max.; gold – 100 cycles max.



### Straight Headers (Tin)

- Dimensions: (A) .295"; (B) .130"; (C) .135"

\*Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
232178CR	22-03-2021	2	*	\$1.10	\$0.09
232186CR	22-03-2031	3	*	.16	.14
232194CR	22-03-2041	4	*	.21	.19
232207CR	22-03-2051	5	.29	.26	.24
232215CR	22-03-2061	6	.34	.31	.27
232223CR	22-03-2081	8	.40	.37	.33
232231CR	22-03-2101	10	.46	.42	.37
232240CR	22-03-2121	12	.56	.51	.45

### Straight Friction Lock Headers (Tin)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
232266CR	22-23-2021	2	.29	.23	.15
232274CR	22-23-2031	3	.35	.30	.19
232282CR	22-23-2041	4	.42	.36	.23
232291CR	22-23-2051	5	.49	.42	.27
232303CR	22-23-2061	6	.55	.48	.31
232311CR	22-23-2071	7	.63	.55	.36
232320CR	22-23-2081	8	.72	.63	.41
232338CR	22-23-2091	9	.76	.66	.36
232346CR	22-23-2101	10	.80	.70	.46
232354CR	22-23-2121	12	.95	.83	.55

### Right Angle Friction Lock Headers (Tin)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233437CR	22-05-3021	2	\$.42	\$.36	\$.22
233445CR	22-05-3031	3	.56	.49	.30
233453CR	22-05-3041	4	.71	.61	.39
233461CR	22-05-3051	5	.77	.67	.43
233470CR	22-05-3061	6	.85	.74	.48
233488CR	22-05-3071	7	.99	.79	.56
233496CR	22-05-3081	8	1.03	.83	.58
233509CR	22-05-3101	10	1.08	.94	.61
233517CR	22-05-3121	12	1.19	.99	.69

### Straight Friction Lock Headers (Gold)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233584CR	22-11-2022	2	\$.54	\$.46	\$.29
233592CR	22-11-2032	3	.85	.74	.47
233605CR	22-11-2042	4	.87	.76	.49
233613CR	22-11-2052	5	1.22	1.06	.69
233621CR	22-11-2062	6	1.34	1.17	.76
233630CR	22-11-2072	7	1.55	1.36	.89
233648CR	22-11-2082	8	1.62	1.42	.93
233656CR	22-11-2102	10	2.02	1.77	1.16
233664CR	22-11-2122	12	2.41	2.12	1.39

### Right Angle Friction Lock Headers (Gold)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

Part No.	Product No.	Positions	1	10	100
233672CR	22-12-2024	2	\$.89	\$.77	\$.48
233681CR	22-12-2034	3	1.15	.99	.63
233699CR	22-12-2044	4	1.36	1.19	.76
233701CR	22-12-2054	5	1.50	1.31	.84
233710CR	22-12-2064	6	1.64	1.43	.92
233728CR	22-12-2084	8	1.86	1.51	1.05

## Corporate Customers

Even lower OEM pricing  
for larger orders!

Call 1-800-831-4242 for details today.

## Molex KK® Series .100" (2.54mm) Female Housing and Crimp Contacts

- Voltage: 250V
- Current: phosphor bronze – 4.0A max., brass – 2.5A max.
- Contact resistance: 20mΩ max.
- Dielectric withstanding volt.: 1500VAC
- Insulation resistance: 50,000MΩ

### Housing Material:

- Contact insertion force: 1.5 lbs. max.
- Contact retention to housing: 8 lbs. min.
- Housing: nylon, UL94V-0
- Operating temperature: 0 to 75°C

### Housing with Locking Ramp & Polarizing Ribs

Part No.	Product No.	Positions	1	10	100
234798CR	22-01-3027	2	\$.29	\$.17	\$.10
234801CR	22-01-3037	3	.29	.21	.13
234819CR	22-01-3047	4	.31	.27	.17
234827CR	22-01-3057	5	.36	.31	.20
234835CR	22-01-3067	6	.42	.36	.23
234843CR	22-01-3077	7	.47	.41	.26
234851CR	22-01-3087	8	.54	.47	.30
234860CR	22-01-3097	9	.58	.50	.32
234878CR	22-01-3107	10	.65	.55	.35
234886CR	22-01-3127	12	.76	.66	.42



### Housing with Locking Ramp

Part No.	Product No.	Positions	1	10	100
234704CR	22-01-2027	2	\$.29	\$.15	\$.09
234712CR	22-01-2037	3	.29	.20	.12
234721CR	22-01-2047	4	.29	.24	.15
234739CR	22-01-2057	5	.33	.28	.17
234747CR	22-01-2067	6	.36	.32	.20
234755CR	22-01-2087	8	.47	.41	.26
234763CR	22-01-2097	9	.51	.44	.28
234771CR	22-01-2107	10	.57	.49	.31
234780CR	22-01-2127	12	.67	.58	.37

### Crimp Contacts

- Accommodates 22 to 30 AWG
- Material: brass or phosphor bronze
- Insulation range: 0.062" (1.58mm) diameter max.
- Prepackaged: order in increments of 10, 100 or 1000

**234923CR:** Brass with tin plating

**234931CR:** Brass with 15µ select gold plating

Part No.	Product No.	10	100	1000
234923CR	08-50-0114	\$.065	\$.048	\$.029
234931CR	08-55-0102	.22	.17	.11



## AMP

### .156" (3.96mm) Male Headers

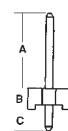
- Voltage and current rating: 600VAC @ 7.0A
- Contact material/plating: copper alloy/tin
- UL94V-0 flammability rating
- .045" square posts
- Insulator material: polyester
- Solder tail material/plating: copper alloy/tin



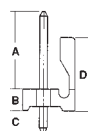
231491CR

231571CR

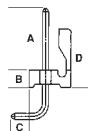
232418CR



Straight Header



Straight Friction Lock



Right Angle Friction Lock

#### Straight Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

\*Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
231546CR	640445-2	2	..... *	\$.07	\$.06
231554CR	640445-3	3	..... *	.075	.065
231562CR	640445-4	4	..... *	.10	.08
231571CR	640445-5	5	..... *	.14	.10
231589CR	640445-6	6	..... *	.17	.13
231597CR	640445-7	7	..... *	.18	.15
231600CR	640445-8	8	..... *	.23	.17
231626CR	1-640445-0	10	..... .31	.24	.19

#### Right Angle Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

Part No.	Product No.	Positions	1	10	100
232362CR	640389-2	2	..... \$.29	\$.26	\$.23
232371CR	640389-3	3	..... .44	.39	.34
232389CR	640389-4	4	..... .59	.52	.46
232397CR	640389-5	5	..... .74	.65	.57
232400CR	640389-6	6	..... .80	.71	.62
232418CR	640389-7	7	..... .93	.83	.73
232426CR	640389-8	8	..... 1.06	.94	.83
232434CR	640389-9	9	..... 1.19	1.06	.92
232442CR	1-640389-0	10	..... 1.33	1.18	.98

#### Straight Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"

Part No.	Product No.	Positions	1	10	100
231458CR	640383-2	2	..... \$.23	\$.20	\$.17
231466CR	640383-3	3	..... .26	.23	.20
231474CR	640383-4	4	..... .29	.26	.22
231482CR	640383-5	5	..... .37	.33	.27
231491CR	640383-6	6	..... .40	.36	.32
231503CR	640383-7	7	..... .47	.42	.34
231511CR	640383-8	8	..... .55	.46	.39
231520CR	640383-9	9	..... .60	.53	.45
231538CR	1-640383-0	10	..... .65	.58	.49

## AMP

### .156" (3.96mm) Female Housing

- Voltage and current rating: 250VAC @ 6.5A maximum
- Material: nylon, unreinforced 94V-0
- Dielectric withstanding voltage: 2kVAC
- Insulation resistance: 1,000MΩ minimum
- Hole diameter: .054" (1.37mm)

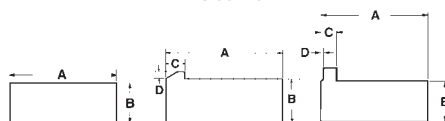


236259CR

236161CR

236347CR

Side View



Without Locking Ramp

With Locking Ramp

With Locking Ramp & Polarizing Tabs

#### With Locking Ramp

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .0365"

\*Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
236144CR	640250-2	2	..... *	\$.152	\$.134
236152CR	640250-3	3	..... *	.086	.053
236161CR	640250-4	4	..... *	.162	.15
236179CR	640250-5	5	..... .20	.138	.105
236187CR	640250-6	6	..... .21	.15	.112
236195CR	640250-7	7	..... .24	.15	.118
236208CR	640250-8	8	..... .228	.144	.142
236216CR	640250-9	8	..... .462	.419	.337
236224CR	1-640250-0	10	..... .513	.466	.349

#### With Locking Ramp and Polarizing Tabs

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .019" ±.003"

\*Prepackaged: order in increments of 10 or 100

Part No.	Product No.	Positions	1	10	100
236321CR	770849-2	2	..... *	\$.114	\$.105
236339CR	770849-3	3	..... .228	.14	.08
236347CR	770849-4	4	..... .20	.173	.15
236355CR	770849-5	5	..... *	.171	.154
236363CR	770849-6	6	..... .304	.28	.182
236371CR	770849-7	7	..... .361	.326	.213
236380CR	770849-8	8	..... .409	.373	.30
236398CR	770849-9	9	..... .464	.392	.207
236401CR	1-770849-0	10	..... .314	.307	.291

#### Without Locking Ramp

- Dimensions: (A) .660"; (B) .250"

\*Prepackaged: order in increments of 10 or 100

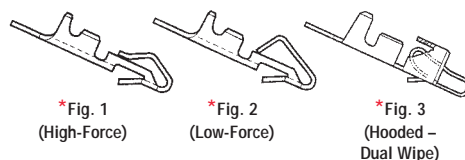
Part No.	Product No.	Positions	1	10	100
236232CR	640251-2	2	..... *	\$.096	\$.095
236241CR	640251-3	3	..... .228	.14	.08
236259CR	640251-4	4	..... .304	.186	.107
236267CR	640251-5	5	..... *	.114	.106
236275CR	640251-6	6	..... .257	.251	.15
236283CR	640251-7	7	..... .418	.326	.213
236291CR	640251-8	8	..... .447	.373	.243
236304CR	640251-9	9	..... .462	.419	.337
236312CR	1-640251-0	10	..... .266	.25	.243

### AMP: Quality Components for Less

AMP D-subminiature connectors, crimp and solder contacts, headers and D-sub hoods—the standard for quality around the globe. Get AMP top-quality brand-name products, along with all your other electronic components and tools, with one call to Jameco. Take a look at our selection on this page and page 82.

### AMP .156" Crimp Contacts

- Voltage rating: 250VAC
- Current rating: 10A maximum
- Low level resistance: 30mΩ max.
- Dielectric withstanding voltage: 2000VAC/1 min.
- Insulation resistance: 1000MΩ minimum
- Compatible with .045" square or round posts
- Material and finish:
  - \*A: brass, 0.012 bright tin plated
  - \*B: brass, 0.012 pre-tin plated
  - \*C: brass, 0.000030 gold over nickel plated
  - \*D: phosphor bronze, 0.012 bright tin plated
  - \*E: phosphor bronze, 0.000030 gold over nickel plated
- For use with .156" AMP housings (left below)
- Prepackaged: order in increments of 10, 100 or 500



Part No.	Product No.	Desc.*	AWG	10	100	500
248866CR	640706-1	1A	18-24	\$.171	\$.155	\$.145
248874CR	640706-2	1B	18-24	... .152	.14	.13
248882CR	640707-1	2A	18-24	... .20	.175	.119
248891CR	770258-1	2C	18-24	... .41	.40	<b>(.30)</b>
248903CR	770522-1	3D	18-24	... .19	.138	.123
248911CR	770258-2	3E	18-24	... .30	.27	.23



See page 82 for AMP D-Sub Connectors with Crimp and Solder Contacts.



### Jameco Special Value!

Sale items highlighted in yellow.  
Great quantity discounts highlighted in green.





## .156" (3.9mm) Center Straight-Friction Lock Headers

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2



104811CR

\* Prepackaged: order in increments of 10, 100, 1000

Part No.	Cross Ref. No.	Pins	1	10	100	1000
104791CR	LMH4	4 .....	* \$ .11	\$ .09	\$ .07	
104803CR	LMH5	5 .....	* .09	.079	.07	
104811CR	LMH6	6 .....	* .15	.12	.10	
104838CR	LMH8	8 .....	* .12	.091	.083	
104846CR	LMH10	10 .....	.22	.17	.16	.14
235491CR	8673-12-5	12 .....	.35	.32	.25	.23

## .156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 128-131) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318CR, below



104731CR

\* Prepackaged: order in increments of 10, 100, 1000

Part No.	Cross Ref. No.	Pins	1	10	100	1000
176743CR	LCH2	2 .....	* \$ .07	\$ .045	\$ .04	
104432CR	LCH3	3 .....	* .19	.12	.11	
104715CR	LCH4	4 .....	* .22	.15	.12	
104723CR	LCH5	5 .....	.24	.22	.16	.12
104731CR	LCH6	6 .....	.33	.30	.24	.15
104766CR	LCH10	10 .....	.39	.32	.28	.23

## .156" (3.9mm) Center Crimp Pin

- Use with .156 housings (above)
- Material: brass/tin plated
- Pin wire gauge: 18-24 AWG



Prepackaged: order in increments of 10, 100, 1000

Part No.	Mfr.	Cross Ref. No.	10	100	1000
78318CR	JS-5001-T		\$ .11	\$ .08	\$ .07

## .156" Female Crimp Pins

- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442CR crimping tool, pg 204



Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr.	Cross Ref. No.	10	100	1000
154093CR	LRPIN		\$ .07	\$ .05	\$ .035



Crimping Tools  
for above  
Crimp Pins –  
See page 204.



## .118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Current rating: 7A AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Withstanding voltage: 1500V/min.

147379CR: ATX male 20-pin edge mount connector

• Material: nylon 66, UL-94V0

• Material of post: tin-plated brass • Diameter of post: .045"

147387CR: Housing connector • Material: nylon 66, UL-94V0

147395CR: ATX power terminal pins • Material: tin-plated brass



147379CR



147395CR



147387CR

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
147379CR	20-pin male connector	1.7"	0.4"	0.6"	—	—	\$ .59	\$ .53	\$ .48	\$ .43
147387CR	20-pin housing connector	1.7"	0.4"	0.8"	—	147395CR	*	.19	.17	.15
147395CR	Power terminal pin, female	.59"	—	—	.068"	147387CR	*	.12	.11	.10

## .098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Current rating: 7A AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ minimum
- Withstanding voltage: 1500V/min.

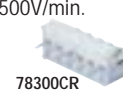
78300CR: AMP60G male 6-pin PCB mount connector

• Material of post: tin-plated brass • Diameter of post: .09"

78326CR: AMP50G female 6-pin housing connector • Material: nylon

78318CR: AMP501T terminal pin

• Material: tin-plated brass



78300CR



78318CR

78326CR

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
78300CR	6-pin male connector	.93"	.37"	.57"	—	—	\$ .45	\$ .39	\$ .35	\$ .31
78326CR	6-pin housing connector	.94"	.25"	.74"	—	78300CR	.35	.31	.28	.25
78318CR	Power terminal pin, female	.69"	—	—	.09"	78326CR	*	.11	.08	.07

## .156" (3.9mm) Center Housing Connectors and Crimp Contact

- Mating connectors for Mean Well LPS and LPP series power supplies (pgs 132-133)
- Current rating: 10A AC/DC
- Voltage rating: 250V AC/DC



215950CR



227416CR

- Material: brass
- Finish: tin-plated
- 18-22 AWG

\* Prepackaged: order in increments of 10, 100, 1000

Part No.	Description	1	10	100	1000
215950CR	5 pos. housing .....	\$ .35	\$ .32	\$ .28	\$ .26
215976CR	8 pos. housing .....	.39	.35	.32	.28
215968CR	12 pos. housing .....	.49	.44	.39	.35
227416CR	Crimp contact .....	.32	.29	.23	.12

## Extraction Tools for Crimp Pins

- Quickly and easily extract .093" locking pins from interlocking connectors
- Length: 5"
- See right for crimp pins, 42729CR & 42649CR



131887CR

131887CR: Male tool for 42729CR

131879CR: Female tool for 42649CR

Part No.	Product No.	1	10
131887CR	HT319C	\$10.95	\$9.86
131879CR	HT319B	10.95	9.86

## 30-Day Money-Back Guarantee

If you're not satisfied,  
we'll take it back!

Details on page 239.

## 0.2"-Pitch Power Connectors & Pins

Connector & Housing Specifications:

- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

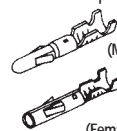
Crimp Pin Specifications:

- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99442CR, pg 204

For 5.25" Disk Drives and Power Supplies

42075CR & 42067CR Connector Housings:

- Keyed mating connectors
- External key bar indicates pin 1



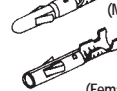
42729CR  
(Male for 42075CR)



109145CR



117567CR



42649CR  
(Female for 42067CR)



42075CR  
(Male)



42067CR  
(Female)

- See far left for extraction tools, 131887CR & 131879CR

\* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
109145CR	4-pin M vert. PCB mtg .....	\$ .66	\$ .59	\$ .48
117567CR	4-pin M PCB mounting, horizontal edge mount .....	.70	.63	.57
42075CR	4-pin M housing .....	.12	.11	.10
42067CR	4-pin F housing .....	.20	.15	.13
42729CR	M crimp pin for 42075CZ .....	.10	.07	.06
42649CR	F crimp pin for 42067CZ .....	.10	.07	.06

For 3.5" Disk Drives and Power Supplies

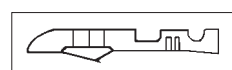
- 0.1" pitch



114930CR



114999CR



114921CR

\* Prepackaged: order in increments of 10, 100 or 1000

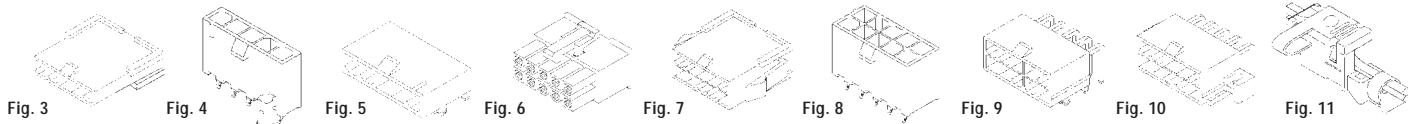
Part No.	Description	10	100	1000
114930CR	4-pin F housing .....	\$ .19	\$ .17	\$ .15
114921CR	F crimp pin for 114930CR .....	.11	.095	.08
Part No.	Description	1	100	1000
114999CR	4-pin M rt. angle PCB mtg ..	\$ .35	\$ .31	\$ .28



## .165" (4.20mm) Mini-Fit Jr. Connectors

- Use with strain relief or overmold applications
- UL/CSA/TUV approved
- Uses standard Mini-Fit series terminals

- Positive housing lock for secure mating retention
- Fully isolated terminals to protect contacts from damage
- Housing: 6/6 nylon, UL 94V-2 rated



### Single Row Receptacles and Plugs

#### Receptacles

Part No.	Product No.	Fig.	Positions	1	10	100
303765CR	39-01-4030	1	3 ....	\$.43	\$.319	\$.203
303773CR	39-01-4040	1	4 .....40	.318	.268	
303781CR	39-01-4050	1	5 .....39	.315	.265	

#### Panel Mount Plugs w/ Mounting Ears

303790CR	39-01-4032	2	3 ....	\$.46	\$.414	\$.276
303829CR	39-01-4052	2	5 .....38	.307	.258	

#### Panel Mount Plugs w/o Mounting Ears

303802CR	39-01-4036	3	3 ....	\$.37	\$.302	\$.254
303811CR	39-01-4046	3	4 .....49	.404	.295	
303837CR	39-01-4056	3	5 .....53	.461	.329	

### Single Row Headers

- Voltage: 600V
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 1000MΩ min.
- Contact: brass or phosphor bronze

#### Vertical Headers w/ Pegs

Part No.	Product No.	Fig.	Positions	1	10	100
304565CR	39-30-1039	4	3 ....	\$.90	\$.537	\$.433
304573CR	39-30-2035	4	3 .....91	.555	.448	
304581CR	39-30-2045	4	4 .....1.49	1.24	.884	
304590CR	39-30-3035	4	5 .....1.51	.903	.721	

#### Right Angle Headers w/ Pegs

304602CR	39-30-3035	5	3 ..	\$1.02	\$.603	\$.482
304611CR	39-30-3045	5	4 ....	1.00	.96	.542
304629CR	39-30-3055	5	5 .....1.52	1.35	.903	

### Double Row Receptacles

Part No.	Product No.	Fig.	Positions	1	10	100
303562CR	39-01-2020	6	2 ....	\$.27	\$.215	\$.162
303571CR	39-01-2040	6	4 .....41	.341	.232	
303589CR	39-01-2060	6	6 .....40	.361	.243	
303597CR	39-01-2080	6	8 .....45	.406	.274	
303600CR	39-01-2100	6	10 .....50	.445	.299	
303618CR	39-01-2120	6	12 .....56	.501	.336	
303626CR	39-01-2140	6	14 .....69	.612	.411	
303634CR	39-01-2160	6	16 .....70	.621	.417	
303642CR	39-01-2180	6	18 .....81	.723	.485	
303651CR	39-01-2200	6	20 .....89	.792	.532	
303669CR	39-01-2220	6	22 .....1.20	1.07	.713	
303677CR	39-01-2240	6	24 .....99	.876	.589	

### Double Row Plugs

#### Panel Mount Plugs w/ Mounting Ears

Part No.	Product No.	Fig.	Positions	1	10	100
303685CR	39-01-2021	7	2 ....	\$.32	\$.264	\$.193
303693CR	39-01-2021	7	4 .....47	.392	.267	
303706CR	39-01-2061	7	6 .....51	.364	.268	
303714CR	39-01-2081	7	8 .....42	.371	.25	
303722CR	39-01-2101	7	10 .....50	.445	.299	
303731CR	39-01-2121	7	12 .....51	.454	.305	
303749CR	39-01-2141	7	14 .....70	.517	.399	
303757CR	39-01-2161	7	16 .....75	.602	.523	

### Double Row Headers

- Voltage: 600V • Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500VAC
- Insulation resistance: 1000MΩ min.
- Contact: brass or phosphor bronze

#### Vertical Headers w/o Pegs – Tin Plated

Part No.	Product No.	Fig.	Positions	1	10	100
303845CR	39-28-1023	8	2 ....	\$.68	\$.415	\$.344
303853CR	39-28-1043	8	4 .....89	.761	.551	
303861CR	39-28-1063	8	6 .....1.19	.95	.658	
303870CR	39-28-1083	8	8 .....1.37	1.19	.827	
303888CR	39-28-1103	8	10 .....1.67	1.45	.96	
303896CR	39-28-1123	8	12 .....1.79	1.27	.888	
303909CR	39-28-1143	8	14 .....2.26	1.98	1.39	
303917CR	39-28-1163	8	16 .....2.50	2.11	1.46	
303925CR	39-28-1183	8	18 .....2.87	2.56	1.71	
303933CR	39-28-1203	8	20 .....3.37	2.95	2.01	
303941CR	39-28-1223	8	22 .....3.15	2.46	1.68	
303950CR	39-28-1243	8	24 .....3.81	3.16	2.25	

#### Vertical Headers w/o Pegs – Gold Plated, 30μ"

303968CR	39-29-0023	8	2 ....	\$.88	\$.686	\$.589
303976CR	39-29-0043	8	4 ....	2.03	1.81	1.07
303984CR	39-29-0063	8	6 .....3.31	2.85	2.00	
303992CR	39-29-0083	8	8 .....4.46	3.97	2.65	
304004CR	39-29-0103	8	10 .....5.02	4.47	2.99	
304012CR	39-29-0123	8	12 .....5.63	5.22	3.49	
304021CR	39-29-0143	8	14 .....6.83	6.08	4.07	
304039CR	39-29-0163	8	16 .....7.71	6.87	4.59	
304047CR	39-29-0183	8	18 .....8.62	7.68	5.14	
304055CR	39-29-0203	8	20 .....9.13	8.12	5.43	
304063CR	39-29-0223	8	22 .....10.55	9.30	6.22	
304071CR	39-29-0243	8	24 .....11.48	10.58	6.76	

#### Right Angle Headers w/ Pegs – Tin Plated

304080CR	39-30-1020	9	2 ....	\$.64	\$.566	\$.383
304098CR	39-30-1040	9	4 ....	1.02	.907	.604
304101CR	39-30-1060	9	6 .....1.31	.968	.664	
304119CR	39-30-1080	9	8 .....1.48	1.31	.877	
304127CR	39-30-1100	9	10 .....1.78	1.05	.864	
304135CR	39-30-1120	9	12 .....2.48	2.16	1.47	
304143CR	39-30-1140	9	14 .....2.74	2.38	1.62	
304151CR	39-30-1160	9	16 .....3.00	2.35	1.70	
304160CR	39-30-1180	9	18 .....3.39	3.05	2.05	
304178CR	39-30-1200	9	20 .....3.95	3.49	2.33	
304186CR	39-30-1220	9	22 .....4.41	3.92	2.61	
304194CR	39-30-1240	9	24 .....4.95	4.39	2.92	

### Strain Reliefs

- Voltage: 600V • Current: 9A
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 1000MΩ min.

Part No.	Product No.	Fig.	Positions	1	10	100
304637CR	15-04-0296	11	6 ..	\$1.04	\$1.00	\$.95
304645CR	15-04-0343	11	8 ....	1.14	1.08	.979
304653CR	15-04-0345	11	12 ...	1.15	1.10	.998

Order Anytime 24x7x365

Fig. 1

Fig. 2



### Double Row Headers (Continued)

#### Right Angle Headers w/ Pegs – Gold Plated, 30μ"

Part No.	Product No.	Fig.	Positions	1	10	100
304207CR	39-30-1021	9	2 ..	\$1.68	\$1.50	\$1.00
304215CR	39-30-1041	9	4 ....	2.14	1.90	1.26
304223CR	39-30-1061	9	6 .....2.64	2.36	1.57	
304231CR	39-30-1081	9	8 .....3.20	2.85	1.90	
304240CR	39-30-1101	9	10 ....	3.81	3.39	2.26
304258CR	39-30-1121	9	12 ....	3.29	3.25	2.65
304266CR	39-30-1140	9	14 ...	5.25	4.67	3.12
304274CR	39-30-1161	9	16 ....	6.06	5.41	3.60
304282CR	39-30-1181	9	18 ....	4.53	4.39	3.44
304291CR	39-30-1201	9	20 ...	7.26	6.47	4.31
304303CR	39-30-1221	9	22 ...	8.64	7.70	5.13
304311CR	39-30-1241	9	24 ...	10.16	9.05	6.03

#### Right Angle Headers w/ Flange – Tin Plated

304320CR	39-29-1028	10	2 ..	\$.818	\$.685	\$.466
304338CR	39-29-1048	10	4 ..	1.06	.865	.665
304346CR	39-29-1068	10	6 ..	1.35	1.06	.782
304354CR	39-29-1088	10	8 ..	1.62	1.26	.876
304362CR	39-29-1108	10	10 ...	1.84	1.55	1.16
304371CR	39-29-1128	10	12 ...	2.15	1.81	1.36
304389CR	39-29-1148	10	14 ...	2.68	2.23	1.63
304397CR	39-29-1168	10	16 ...	2.92	2.46	1.84
304400CR	39-29-1188	10	18 ...	3.17	2.82	1.88
304418CR	39-29-1208	10	20 ...	3.72	3.32	2.21
304426CR	39-29-1228	10	22 ...	3.83	3.41	2.28
304434CR	39-29-1248	10	24 ...	4.69	3.97	2.78

#### Right Angle Headers w/ Flange – Gold Plated, 30μ"

304442CR	39-29-5023	10	2 ..	\$1.62	\$1.43	\$.96
304451CR	39-29-5043	10	4 ....	1.85	1.64	1.10
304469CR	39-29-5063	10	6 ....	2.72	2.38	1.62
304477CR	39-29-5083	10	8 ....	3.09	2.75	1.83
304485CR	39-29-5103	10	10 ...	4.09	3.65	2.43
304493CR	39-29-5123	10	12 ...	4.11	3.66	2.44
304506CR	39-29-5143	10	14 ...	5.11	4.55	3.04
304514CR	39-29-5163	10	16 ...	5.87	5.22	3.49
304522CR	39-29-5183	10	18 ...	6.74	5.99	4.01
304531CR	39-29-5203	10	20 ...	7.28	6.47	4.32
304549CR	39-29-5223	10	22 ...	8.63	7.68	5.13
304557CR	39-29-5243	10	24 ...	9.20	8.18	5.47

### Hand Crimp Tools for Mini-Fit Jr. Contacts



308030CR: Cuts & strips 14-24 AWG wires  
227491CR: Cuts & strips 18-30 AWG wires

Part No.	Product No.	Length	Color	1	5
308030CR	W-HT-1919	8.3"L	Red	.....	\$14.99 \$13.99
227491CR	W-HT-1921	8.3"L	Yellow	..	14.99 13.99

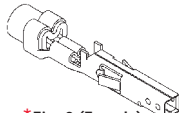
## **molex** .165" (4.2mm) Mini-Fit Jr. Contacts

- Voltage: 600V
- Current: 9A (112A current rating)
- Contact resistance: 10mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 1000MΩ min.
- Material:
  - \*A: Brass (pre-plated tin over copper)
  - \*B: Brass or copper (post-plated tin over nickel)
  - \*C: Brass (post-plated tin over nickel)
  - \*D: Phosphor bronze (pre-plated gold over nickel)

\*Prepackaged: order in increments of 10, 100 or 1000



\*Fig. 1 (Male)



\*Fig. 2 (Female)

### Male Contacts

Part No.	Product No.	Desc.*	AWG	1	10	100
304661CR	44478-3112†	1B	16 .....	\$.20	\$.169	\$.152
304688CR	39-00-0224	1D	16 .....	.85	.704	.508
304709CR	39-00-0096	1C	16 .....	.62	.517	.376
307985CR	39-00-0040	1A	18-24 .....	*	.027	.025
304725CR	39-00-0041	1A	18-24 .....	*	.056	.047
304741CR	39-00-0220	1D	18-24 .....	.76	.704	.389
304792CR	30490-2012	1D	18-24 ...	.25	.244	.209
304805CR	39-00-0054	1C	18-24 ...	.43	.404	.306
304821CR	30490-1012	1D	18-24 ...	.83	.686	.494
304768CR	44478-1112†	1B	22-28 ...	.28	.261	.171
304864CR	39-00-0049	1A	22-28 ...	.20	.071	.07
304881CR	39-00-0222	1D	22-28 ...	.76	.649	.466
304901CR	39-00-0088	1C	22-28 ...	.43	.40	.361

### Female Contacts

Part No.	Product No.	Desc.*	AWG	1	10	100
304670CR	4476-3112†	2C	16 .....	\$.32	\$.261	\$.155
304696CR	39-00-0186	2D	16 .....	.85	.70	.51
304717CR	39-00-0168	2C	16 .....	.58	.479	.346
307993CR	39-00-0038	2A	18-24 .....	*	.035	.029
304733CR	39-00-0039	2A	18-24 .....	*	.064	.059
304750CR	39-00-0039	2A	18-24 ...	.46	.44	.389
304776CR	44476-1112†	2B	18-24 ...	.32	.261	.188
304784CR	44485-1212†	2D	18-24 ...	.88	.733	.523
304813CR	39-00-0164	2C	18-24 ...	.43	.39	.345
304872CR	39-00-0047	2A	22-28 ...	.20	.14	.096
304899CR	39-00-0184	2D	22-28 ...	.45	.435	.428
304910CR	39-00-0166	2C	22-28 ...	.58	.478	.323

## **molex** Hand Tools for Mini-Fit Jr.



- 304928CR: Crimp tool
- Accepts wire range from 14-24 AWG
- 304936CR: Extraction tool

Part No.	Product No.	1	5
304928CR	63811-1000	\$42.99	\$39.99
304936CR	11-03-0044	19.99	18.99



More **NEW**  
IC Sockets  
see page 245.

## **ARIES** Oscillator Sockets

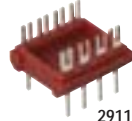
- Body material: blue UL 94V-0 glass filled polyester thermoplastic
- Brass alloy pin, 1/2 hard w/ 200μ" (1.27μm) 93/7 tin/lead plating
- Contact current: 3A
- Center pin spacing: .300" (7.62mm)
- Operating temperature: 221°F (105°C)
- Suggested PCB hole size: .030" (.76mm)



291258CR

Part No.	Prod. No.	Pos.	L" x W"	1	10	100
291282CR	1108800	8	.40 x .40 ..	\$.56	\$.47	\$.38
291258CR	1107741	14	.70 x .40 ....	.56	.47	.38

## **ARIES** DIP Headers and Header Covers



291119CR



291451CR

- Standard cover/body material is red UL 94-HB glass filled nylon
- High temperature cover/body material is black UL 94V-0 4/6 nylon

### Series 600 Headers w/ Coined Contacts

- Coined contacts are brass 1/2 hard
- Contact plating: 100μ min., tin
- Contact current rating: 2A
- Operating temperature: 221°F (105°C)
- Fork contacts: accepts up to .025" (.64mm) dia. leads

Part No.	Product No.	Pos.	*W (in.)	1	10	100
291119CR	08-600-10	8	.300 ..	\$1.09	\$ .96	\$.79
291311CR	14-600-10	14	.300 ....	1.55	1.37	1.11
291573CR	16-600-10	16	.300 ....	1.69	1.49	1.22
291872CR	18-600-10	18	.300 ....	1.89	1.67	1.35
291944CR	20-600-10	20	.300 ....	2.05	1.79	1.45
291995CR	24-600-10	24	.600 ....	2.49	2.19	1.79
295128CR	28-600-10	28	.600 ....	2.89	2.55	2.06

\* Center to center pin width

### Series 650 Header Covers

Part No.	Prod. No.	Pos.	*Ht. (in.)	1	10	100
291127CR	08-650-10	8	.125 ....	\$.48	\$.395	\$.309
291338CR	14-650-10	14	.125 .....	.49	.40	.32
291451CR	14-650-20	14	.375 .....	.53	.44	.35
291653CR	16-650-10	16	.125 .....	.52	.43	.35
291661CR	16-650-20	16	.375 .....	.52	.43	.35
291881CR	18-650-10	18	.125 .....	.61	.50	.41
291952CR	20-650-10	20	.125 .....	.60	.50	.41
292007CR	24-650-10	24	.125 .....	.67	.56	.45
292023CR	24-650-20	24	.375 .....	.79	.68	.53
295136CR	28-650-10	28	.125 .....	.87	.74	.59

\* Max. component height

## Low Profile IC Socket Kit

### Includes:

- 20-drawer component cabinet (81701CR), 20 clear plastic drawers (85454CR), 20 clear dividers (85446CR), pg 120 and 30 adhesive labels for drawers to identify parts in kit
- 10 ea. 22LP and 24SLP, pg 91
- 20 ea. 18LP, 24LP, 28LP and 40LP, pg 91
- 50 ea. 8LP, 14LP, 16LP and 20LP, pg 91



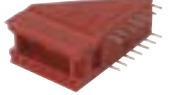
SAVE \$10

Part No.	Description	Wt. (lbs.)	1	10
85075CR	300 pcs. LP IC socket kit	5.5 ....	\$36.95	\$33.25

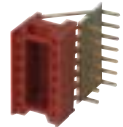
## **ARIES** Series 800 Vertisockets

### With Bifurcated Contacts

- Body material: UL 94-HB glass filled nylon
- Phosphor bronze spring tempered bifurcated contacts
- Contact plating: 100μ" (2.54μm) tin or 10μ" (.254μm) gold
- Contact current: 1.5A
- Operating temperature: 221°F (105°C) for tin; 257°F (125°C) for gold
- Suggested PCB hole size: .044" (1.12mm) dia.
- Gold plated (except 296770CR – tin plated)
- Center pins: .300" (except 291231CR – .200")



291477CR



291485CR

### Vertical Mount

Part No.	Product No.	Pins	L" x W"	1	10	100
291231CR	10-2810-90	10	1.0 x .29 ...	\$4.99	\$4.19	\$3.39
291477CR	14-810-90R	14	1.4 x .39 ....	2.69	2.39	1.85
296770CR	14-810-90T	14	1.4 x .39 ....	3.65	3.25	2.49

### Horizontal Mount

291485CR	14-823-90	14	1.4 x .39 ..	\$4.15	\$3.69	\$2.85
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### Horizontal Mounting w/ Collet Contacts

- Body material: UL 94-HB glass filled nylon
- Brass alloy pin body w/ 200μ" (5.07μm) 93/7tin/lead plating
- Beryllium copper alloy 4-fingered collet contacts
- Operating temperature: 221°F (105°C)
- Contact current: 3A
- Center pins: .300" (7.62mm)
- Suggested PCB hole size: .035" (.89mm) dia.



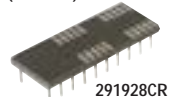
Part No.	Product No.	Pins	L" x W"	1	10	100
295241CR	40-6823-10	40	2.0 x .70	\$12.69	\$11.19	\$8.59

## **ARIES** SOIC/SOJ to DIP Adapters

- Board material: .062" thick FR-4 with 1 oz. copper traces on both sides
- Brass alloy pins 1/2 hard with 200μ" (5.08μm) minimum tin plating
- Operating temperature: 221°F (105°C)
- Suggested PCB hole size: .028" (.71mm) dia.

### Series 35000X

- Center pins: .300" (7.62mm)
- SOIC package (except 291928CR – SOJ)



291928CR

Part No.	Product No.	Pins L" x W"	1	10	100
291207CR	08-350000-10	8 400 x .460	\$6.59	\$5.59	\$4.50
291291CR	14-350000-10	14 700 x .450 ...	6.55	5.55	4.49
291514CR	16-350000-10	16 800 x .450 ...	6.55	5.59	4.49
291864CR	18-350000-10	18 900 x .450 ...	6.55	5.55	4.49
291910CR	20-350000-10	20 1.0 x .450 ...	6.55	5.55	4.49
291928CR	20-350001-10	20 1.0 x .420 ...	6.05	5.99	5.90
291979CR	24-350000-10	24 1.2 x .450 ...	4.45	3.85	3.75
292074CR	28-350000-10	28 1.4 x .400 ...	6.05	5.23	5.09

### Series 45000X

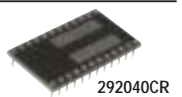
- Center pins: .400" (10.16mm)
- SOJ package



Part No.	Product No.	Pins L" x W"	1	10	100
295179CR	32-450001-10	32 1.6 x .530	\$8.85	\$7.65	\$7.42

### Series 65000X

- Center pins: .600" (15.24mm)
- SOIC package (except 295187CR – SOJ)



Part No.	Product No.	Pins	L" x W"	1	10	100
295187CR	32-650000-10	32	1.6 x .700	\$10.15	\$8.70	\$8.45
292040CR	32-650000-10	24	1.6 x .700 ...	9.19	8.55	6.85
295144CR	28-650000-10	28	1.4 x .700	10.15	8.71	8.45

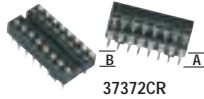






## Dual Wipe Solder Tail Low-Profile Sockets

- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Thru-hole lead length: .140" (A)
- Body height: .188" (B)
- Prepackaged: order in increments of 10, 100 or 1000



Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
112192CR	6LPD	6	0.3	\$.09	\$.06	\$.05
112205CR	8LPD	8	0.3	\$.09	\$.08	\$.07
112213CR	14LPD	14	0.3	\$.10	\$.075	\$.05
112221CR	16LPD	16	0.3	\$.13	\$.115	\$.095
112230CR	18LPD	18	0.3	\$.16	\$.14	\$.12
307977CR	22LPD	22	0.3	\$.14	\$.14	\$.12
112281CR	24SLPD	24	0.3	\$.14	\$.13	\$.09
112299CR	28SLPD	28	0.3	\$.21	\$.19	\$.17
112301CR	32LPD	32	0.6	\$.22	\$.187	\$.14
112310CR	40LPD	40	0.6	\$.26	\$.23	\$.19
167396CR	48LPD	48	0.6	\$.26	\$.23	\$.21

### Special Limited Offers from Other Manufacturers

#### Single & Dual Wipe Low-Profile Sockets

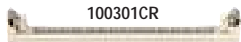
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
51570CR	8LP*	8	0.3	\$.063	\$.054	\$.045
37161CR	14LP*	14	0.3	\$.081	\$.063	\$.054
37372CR	16LP*	16	0.3	\$.09	\$.081	\$.054
38113CR	18LP*	18	0.3	\$.099	\$.084	\$.063
38607CR	20LP*	20	0.3	\$.108	\$.09	\$.063
112248CR	20LPD†	20	0.3	\$.153	\$.13	\$.098
39132CR	22LP*	22	0.4	\$.108	\$.09	\$.085
39378CR	24SLP*	24	0.3	\$.153	\$.13	\$.098
39335CR	24LP*	24	0.6	\$.144	\$.122	\$.091
112264CR	24LPD†	24	0.6	\$.171	\$.144	\$.108
40301CR	28LP*	28	0.6	\$.171	\$.117	\$.081
112272CR	28LPD†	28	0.6	\$.189	\$.161	\$.12
41110CR	40LP*	40	0.6	\$.171	\$.153	\$.108
112326CR	64LPD†	64	0.9	\$.162	\$.139	\$.104

\* Included in IC Socket Kit, pg 89 † Dual Wipe



## SIMM Sockets

- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts



Part No.	Description	1	10	100	500
100301CR	Single x 30-pin, vert.	\$.52	\$.47	\$.43	\$.39

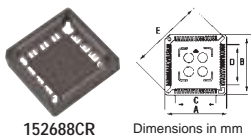
### Special Limited Offers from Other Manufacturers

72531CR	Dual x 30-pin, vert.	\$.24	\$.22	\$.17	\$.13
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## PLCC Surface Mount Sockets

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55°C/+170°C



Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
152688CR	PLCC44D	44	\$.75	\$.68	\$.54	\$.40
307951CR	850-68-99ST	68	\$.86	\$.78	\$.69	\$.66

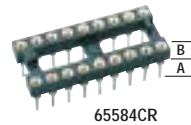
### Special Limited Offers from Other Manufacturers

152696CR	PLCC68D	68	\$.47	\$.42	\$.34	\$.25
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## Machine Tooled Solder Tail Low-Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A)
- Body height: .117" (B)



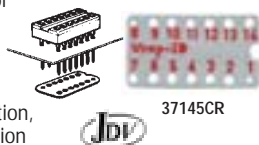
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	1000
167003CR	6MLPT	6	0.3	\$.29	\$.26	\$.18	\$.16
51625CR	8MLP	8	0.3	\$.25	\$.22	\$.19	\$.17
37196CR	14MLP	14	0.3	\$.42	\$.38	\$.33	\$.30
37401CR	16MLP	16	0.3	\$.47	\$.43	\$.37	\$.34
65584CR	18MLP	18	0.3	\$.55	\$.49	\$.43	\$.39
38623CR	20MLP	20	0.3	\$.59	\$.55	\$.45	\$.39
39386CR	24SMLP	24	0.3	\$.65	\$.59	\$.47	\$.35
114411CR	28SMLP	28	0.3	\$.85	\$.75	\$.65	\$.55
40328CR	28MLP	28	0.6	\$.83	\$.75	\$.65	\$.59
105380CR	32MLP	32	0.6	\$.95	\$.85	\$.75	\$.65
41136CR	40MLP	40	0.6	\$.19	\$.105	\$.79	\$.69
42059CR	48MLP	48	0.6	\$.129	\$.118	\$.95	\$.71
200707CR	64MLP	64	0.9	\$.135	\$.125	\$.115	\$.99

### Special Limited Offers from Other Manufacturers

192209CR	224SMLP	22	0.4	\$.53	\$.48	\$.387	\$.29
39351CR	24MLP	24	0.6	\$.65	\$.59	\$.47	\$.35
184680CR	284SMLP	28	0.4	\$.80	\$.72	\$.58	\$.43

## Wire Wrap Socket I.D. Markers

- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function



Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
51561CR	8ID	8	0.3	\$.44	\$.35	\$.30	\$.28
37145CR	14ID	14	0.3	\$.35	\$.31	\$.28	\$.24
37356CR	16ID	16	0.3	\$.29	\$.26	\$.25	\$.23
38105CR	18ID	18	0.3	\$.49	\$.45	\$.39	\$.35
38586CR	20ID	20	0.3	\$.55	\$.49	\$.45	\$.41
39327CR	24ID	24	0.6	\$.59	\$.52	\$.43	\$.38
40299CR	28ID	28	0.6	\$.65	\$.55	\$.45	\$.41
41101CR	40ID	40	0.6	\$.89	\$.79	\$.69	\$.65



## PLCC Solder Tail Sockets

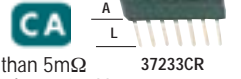
- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"



Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
71263CR	G1P428	28	\$.56	\$.44	\$.34	\$.29
71811CR	G1P432	32	\$.55	\$.48	\$.41	\$.39
71618CR	G1P444	44	\$.15	\$.99	\$.81	\$.69
72442CR	G1P452	52	\$.99	\$.79	\$.65	\$.55
71968CR	G1P468	68	\$.15	\$.99	\$.89	\$.79
71976CR	G1P484	84	\$.129	\$.119	\$.93	\$.70

## Level 1, 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW); dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .315" (L1); .438" (L2); .638" (L3)
- Body height: .300" (A)



### Gold (WW)

Part No.	Prod. No.	Pins	W (in.)	1	10	100	500
51641CR	8WW2	8	0.3	\$1.49	\$1.29	\$1.19	\$.99
37233CR	14WW2	14	0.3	1.49	1.35	1.19	1.09
37479CR	16WW2	16	0.3	1.75	1.59	1.43	1.29
196859CR	18WW3	18	0.3	1.52	1.37	1.20	1.09
38674CR	20WW2	20	0.3	2.25	1.99	1.82	1.65
39394CR	24WW2	24	0.6	1.85	1.63	1.43	1.33
40352CR	28WW2	28	0.6	2.19	1.99	1.75	1.60
41187CR	40WW2	40	0.6	3.15	2.80	2.45	2.29

### Tin (TWW)

Part No.	Prod. No.	Pins	W (in.)	1	10	100	500
112660CR	8TWW2	8	0.3	\$.86	\$.61	\$.58	\$.55
37217CR	14TWW2	14	0.3	1.15	1.03	.93	.84
37436CR	16TWW2	16	0.3	.99	.89	.73	.66
87636CR	18TWW2	18	0.3	1.09	.98	.81	.73
75379CR	20TWW2	20	0.3	1.69	1.52	1.35	1.23
75416CR	24TWW2	24	0.6	1.49	1.35	1.09	.79
75424CR	28TWW2	28	0.6	1.89	1.63	1.36	1.22
41179CR	40TWW2	40	0.6	2.49	2.15	1.79	1.59

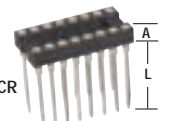
### Special Limited Offers from Other Manufacturers

196832CR	14WW1	14	0.3	\$1.05	\$.94	\$.76	\$.57
196841CR	14TWW3	14	0.3	.82	.74	.59	.44



## Level 3 Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: ≥5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Body height: .115" (A)
- Thru-hole lead length: .365" (L2); .515" (L3)



Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
94473CR	8MSWW3	8	0.3	\$.53	\$.46	\$.38	\$.34
62050CR	14MSWW3	14	0.3	\$.93	\$.80	\$.67	\$.60
37410CR	16MSWW3	16	0.3	1.09	.93	.78	.69
94481CR	18MSWW3	18	0.3	1.09	.93	.78	.74
38631CR	20MSWW3	20	0.3	1.33	1.14	.95	.86
185324CR	22MSWW3	22	0.3	1.35	1.19	1.09	.99
105371CR	24MSWW3	24	0.3	1.49	1.29	1.08	.97
94490CR	24MSWW3	24	0.6	1.60	1.38	1.15	1.05
200715CR	28MSWW3	28	0.3	1.69	1.43	1.19	1.07
40336CR	28MSWW3	28	0.6	1.69	1.43	1.19	1.07
117057CR	32MSWW3	32	0.6	2.19	1.99	1.79	1.49
94502CR	40MSWW3	40	0.6	2.66	2.28	1.90	1.71
200723CR	48MSWW3	48	0.6	2.99	2.69	2.39	2.15
200731CR	64MSWW3	64	0.9	2.59	2.37	2.15	1.96

### Special Limited Offers from Other Manufacturers

192831CR	224MSWW3	22	0.4	\$1.29	\$1.16	\$.93	\$.70
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## 100" Non-Polarized Connector Housings and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see pg 90)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265CR pin crimper, pg 204 and 100765CR below

\* Prepackaged: order in increments of 10, 100 or 1000

		Single Row					
		103190CR	100765CR				
Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000	
100811CR	SCH2	2	..... *	\$ .23	\$ .21	\$ .17	
157382CR	SCH3	3	..... *	.24	.22	.18	
100802CR	SCH4	4	..... *	.25	.23	.19	
163686CR	SCH5	5	..... .30	.27	.25	.22	
103211CR	SCH6	6	..... .34	.31	.27	.21	
103202CR	SCH8	8	..... .39	.35	.29	.25	
103190CR	SCH10	10	..... .42	.39	.36	.31	
103181CR	SCH20	20	..... .49	.45	.39	.35	
103157CR	SCH36	36	..... .49	.45	.39	.35	
100765CR	FCH1	Female pin	..... *	.11	.09	.06	
145357CR	MCH1	Male pin	..... *	.15	.135	.12	

		Double Row					
		145357CR	103253CR				
Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000	
103253CR	DCH8	8	..... \$ .59	\$ .53	\$ .45	\$ .39	
157420CR	DCH10	10	..... .69	.62	.55	.49	
157438CR	DCH14	14	..... .73	.71	.69	.59	
103237CR	DCH16	16	..... .79	.71	.57	.43	
103229CR	DCH20	20	..... .99	.89	.79	.69	
157462CR	DCH40	40	..... 1.09	.99	.89	.75	
157471CR	DCH50	50	..... .65	.59	.47	.35	
100765CR	FCH1	Female pin	..... *	.11	.09	.06	
145357CR	MCH1	Male pin	..... *	.15	.135	.12	

## USB-A & B Connectors and Pins

1.0 and 2.0



- 174060CR: USB-A & B (2.0) Male Connector
- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724CR) required per USB connector
- 161023CR/230949CR/230957CR: USB-A & B (1.0 & 2.0) Female Connectors
- PC mount right angle with board locks
- 230965CR: Male Crimp Pin
- Pin for P/N 174060CR (4 required) • Contact: gold
- Use P/N 159265CR for crimping tool, pg 204
- \* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
161023CR	USB-A 1.0 conn. (F) ...	\$ .79	\$ .69	\$ .62	\$ .56
230949CR	USB-A 2.0 conn. (F) .....	.99	.85	.55	.42
174060CR	USB-B 2.0 conn. (M) .....	.79	.69	.62	.56
230957CR	USB-B 2.0 conn. (F) .....	.99	.85	.55	.42
230965CR	Crimp pin (M) for 2.0 .....	*	.125	.09	.065

## 100" Low Profile Keyed Shrouded Headers & Connector CD-ROM 4-Pin Headers and Connector



- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442CR, pg 204
- \* Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	1	10	100	1000
152741CR	Straight header .....	\$ .45	\$ .39	\$ .35	\$ .29
152725CR	Right angle header ...	.55	.50	.40	.30
152733CR	Single w/ latch ↑ .....	.43	.37	.22	.16
181673CR	Female pins .....	*	.11	.08	.06

↑ P/N 152733CR requires 4 pins (P/N 181673CR)

## 100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188" • .01" spacing between leads

Part No.	Mfr. Cross Ref. No.	Width	Pins	1	10	100
104336CR	8HP	0.3"	8	..... \$ .79	\$ .67	\$ .57
37129CR	14HP	0.3"	14	..... 1.19	.99	.89
37330CR	16HP	0.3"	16	..... 1.35	1.25	1.09
38578CR	20HP	0.3"	20	..... 1.49	1.35	1.19

## 100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Plastic with gold-plated contacts
- Uses 28 AWG flat ribbon cable, pg 70
- Current rating: 1 amp

Part No.	Mfr. Cross Ref. No.	Width	Contacts	1	10	100	500
42657CR	609-14	0.3"	14	.. \$ .49	\$ .40	\$ .35	\$ .29
42673CR	609-16	0.3"	16	.... .55	.45	.35	.30
104096CR	609-20	0.3"	20	..... .69	.62	.55	.49
42690CR	609-24	0.6"	24	.... .79	.71	.64	.59
99670CR	609-28	0.6"	28	.... .89	.80	.72	.59
42711CR	609-40	0.6"	40	.. 1.15	1.05	.95	.85

## Card-Edge Connectors

- Fits all PC boards • .054" to .070" thick

### Solder Eyelet .140" Spacing Between Rows

- Contact centers: .156" • With mounting ears

Part No.	Position	Contacts	1	10	100
39116CR	22/44	Gold .....	\$2.95	\$2.65	\$2.38

### Solder Tail .200" Spacing Between Rows

- Contact centers: .100"
- Without mounting ears

Part No.	Position	Contacts	1	10	100
40694CR	31/62	Tin (PC/AT) .....	\$ .93	\$ .82	\$ .65
42091CR	49/98	Tin (AT) .....	.89	.59	.39

## 10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')

Part No.	Product No.	1	10
171272CR	IF-C-E1000	\$6.95	\$6.25

## Fiber Optic Infrared Detectors

- Mates with standard 1000µm core jacketed plastic fiber cable
- Connector-less fiber termination and connection
- Inexpensive plastic connector housing
- Compatible with LED emitters, below
- Interference-free transmission from light-tight housing
- Internal micro-lens for efficient coupling
- 169990CR: TTL compatible output infrared detector
- 169981CR: TTL open-collector output infrared detector

Part No.	Prod. No.	Color Dot	Peak Wavelength Sensitivity	1	10
169990CR	IF-D95T	Yellow	800nm ...	\$5.75	\$4.69
169981CR	IF-D96	White	850nm .....	7.99	7.35

## Infrared and Visible Light Fiber Optic LED Emitters

- Mates with standard 1000µm core jacketed plastic fiber cable (recommend P/N 171272CR, above)
- Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity
- Compatible with fiber optic photo detectors, above

### Peak Wavelength Sensitivity:

- 169957CR: 950nm, Vf=1.7V max @ 50mA
- 169965CR: 660nm, Vf=1.8V max @ 50mA
- 169949CR: 660nm, Vf=1.8V max @ 50mA

Part No.	Product No.	Color Dot	1	10
169957CR	IF-E91A	Blue .....	\$2.99	\$2.49
169965CR	IF-E96	Pink .....	5.35	4.89
169949CR	IF-E97	Red .....	5.75	4.75

For Fiber Optic Kits, see page 232.



Even lower OEM pricing for larger orders!

## Corporate Customers

Call 1-800-831-4242 for details today.



## DIN and Mini DIN Plugs and Receptacles

- Solder barrels including strain relief
- See page 70 for cable

Part No.	Pins	Type	1	10	100
142279CR	4	Mini plug	\$.79	\$.68	\$.53
142261CR	6	Mini plug	.89	.77	.59
177244CR	6	Mini receptacle	.99	.85	.69
111878CR	8	Mini plug	.99	.89	.74
177236CR	8	Mini receptacle	1.09	.93	.69
15878CR	5	DIN plug	.52	.47	.41
180873CR	5	DIN receptacle	.52	.45	.34
15886CR	6	DIN plug	.59	.50	.39
15894CR	8	DIN plug	.65	.56	.43

## DIN Female Sockets

- Metal body
- Panel mount with solder lugs

Part No.	Mr. Cross Ref. No.	# of pins	1	10	100	500
15843CR	DINJ5	5	\$1.29	\$1.15	\$1.05	\$.79
15851CR	DINJ6	6	1.39	1.25	1.15	.99
15860CR	DINJ8	8	1.49	1.35	1.15	1.05

## Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts

Part No.	Mr. Cross Ref. No.	# of pins	1	10	100	500
140792CR	MDR4S	4 (mini)	\$.69	\$.59	\$.46	\$.34
119474CR	MDR6S	6 (mini)	.75	.68	.54	.40
29399CR	RD5	5	.59	.53	.40	.36

## Special Limited Offers from Other Manufacturers

- Set back: 0.5"
- PC mount contacts
- Plastic/metal body

Part No.	Mr. Cross Ref. No.	# of pins	1	10	100	500
140791CR	MDR4S	4 (mini)	\$.62	\$.56	\$.45	\$.33
207722CR	MDS8100	8 (mini)	.89	.80	.64	.48

## PCB Centronics Connectors

- Solder-type contacts
- Space between rows: .164"
- Space between pins: 0.1"
- Metal body
- PC mount

Part No.	Description	1	10	100
72151CR	36-contact fem., rt angle	\$3.55	\$3.19	\$2.87
72080CR	50-contact fem., rt angle	4.95	4.21	3.16

## Special Limited Offers from Other Manufacturers

159708CR	36-contact fem., straight	\$1.25	\$1.12	\$.95
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## IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251CR IDC crimping tool, pg 204

Part No.	Mr. Cross Ref. No.	Description	1	10	100
13848CR	CEN36M	36-contact male	\$1.75	\$1.55	\$1.39

## .100" IDC Plug Connectors

- .100" x .100" grid
- Plastic
- Shrouded header/w/o mounting ears
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, right

Part No.	Cross Ref. No.	Contacts	1	10	100
29188CR	P40	40	\$1.95	\$1.75	\$1.49
29217CR	P50	50	1.95	1.75	1.49

## .100" Low-Profile Male Shrouded Headers

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Use with IDC socket connectors, above

## Straight Male Headers

Part No.	Description	1	10	100	1000
67811CR	10-pin	\$.39	\$.35	\$.32	\$.28
68179CR	16-pin	.44	.40	.35	.32
68291CR	20-pin	.49	.47	.39	.23
68371CR	26-pin	.54	.42	.35	.21
68582CR	34-pin	.79	.65	.46	.31
181104CR	40-pin	.75	.60	.45	.315

## Special Limited Offers from Other Manufacturers

## Right Angle Male Header

Part No.	Description	1	10	100	1000
211182CR	26-pin	\$.41	\$.37	\$.30	\$.22

## .100" (2.5mm) Female Header Receptacles

- Gold plated contacts
- 0.1" contact center

## Right Angle Mount (Side Entry)

Part No.	Contacts	Type	1	10	100	500
71159CR	20	Double row	\$1.25	\$1.10	\$.99	\$.85

## Vertical Mount (Top Entry)

Part No.	Contacts	Type	1	10	100	500
70754CR	8	Single row	\$.59	\$.53	\$.43	\$.35
200782CR	12	Single row	.79	.59	.45	.42
70720CR	16	Double row	.89	.79	.72	.65
70826CR	20	Double row	.99	.89	.71	.53
105056CR	30	Double row	1.09	.98	.88	.74
111704CR	40	Double (Tin)	1.29	1.15	.99	.89

## Special Limited Offers from Other Manufacturers

163862CR	34	Double row	\$1.05	\$.94	\$.76	\$.57
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## Centronics Parallel Interface Connector

- Metal Body and Shell Solder-Type Contacts
- Solder eyelets accept 24 AWG wire, pg 70
- Male cable plugs
- Complete with cable boot, shell and hardware

Part No.	Cross Ref. No.	Contacts	1	10	50
42382CR	57-30360	36	\$1.79	\$1.59	\$1.49

## .100" & 2mm IDC Socket Connectors

- Double Row
- Mates with 2 rows of .025" Sq. or Dia. posts on patterns of .100" centers (male headers, see below)
- Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimping P/N 73251CR, pg 204

## Polarized IDC Socket Connectors

Part No.	Mr. Cross Ref. No.	Contacts	1	10	100	1000
32491CR	S10	10	\$.29	\$.25	\$.19	\$.15
153947CR	S14	14	.32	.27	.21	.16
119466CR	S16	16	.35	.29	.22	.17
32521CR	S20	20	.39	.32	.25	.18
32563CR	S26	26	.45	.35	.29	.19
32643CR	S34	34	.49	.39	.35	.25
32678CR	S40	40	.55	.45	.39	.29
100386CR	IDC440*	44 (2mm)	.99	.89	.75	.59
32707CR	S50	50	.65	.55	.45	.35
32758CR	S60	60	.75	.68	.54	.40

\*2mm pin spacing

## Non-Polarized IDC Socket Connectors

Part No.	Mr. Cross Ref. No.	Contacts	1	10	100	1000
138376CR	SN10	10	\$.35	\$.32	\$.28	\$.24
138325CR	SN20	20	.45	.40	.36	.28
138333CR	SN26	26	.39	.35	.32	.24
138341CR	SN34	34	.45	.40	.35	.28
138350CR	SN40	40	.49	.45	.39	.29
138368CR	SN50	50	.65	.59	.467	.35

## .100" (2.5mm) Straight Male Headers

## With Standard Latch

- Double Row
- 0.1" contact center
- Mount vertical
- Keying slot
- Use with IDC socket connectors, above

Part No.	Description	1	10	100	500
117663CR	10-pin	\$1.29	\$1.16	\$.99	\$.61
71829CR	20-pin	1.39	1.25	1.13	.95
71933CR	26-pin	1.49	1.25	.99	.89
72215CR	50-pin	1.85	1.65	1.49	1.35

## PANAVISE IDC Bench Press and Cable Cutter

- Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174CR	M505	Bench press	7.0	\$179.95	\$159.95

## M505 Accessories

27182CR	M507	Cable cutter	0.9	\$66.95	\$61.95
27203CR	M510	Base plate	0.5	26.49	23.49

See pages 70 & 71 for Gray and Multicolor Ribbon Cables.



## Slim-Line D-Sub Gender Changers



### For Confined Applications!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Part No.	Description	1	10	100
18497CR	9-pin male	\$4.95	\$4.49	\$3.99
18489CR	9-pin female	4.95	4.49	3.99
56071CR	15-pin male	3.95	3.49	2.95
56063CR	15-pin female	3.95	3.39	2.55
119319CR	15-pin female HD	4.29	3.89	3.49
119301CR	15-pin male HD	4.95	4.49	3.95
18446CR	25-pin male	4.95	4.49	3.99
18420CR	25-pin female	4.95	4.49	3.99
170085CR	25-pin M-F (pass through)	2.95	2.65	2.35



## Standard D-Sub Gender Changers



- Standard 9 and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

Part No.	Description	1	10	100
16635CR	D-sub 9-pin male	\$1.95	\$1.75	\$1.49
16643CR	D-sub 9-pin female	1.95	1.75	1.49
22058CR	D-sub 25-pin male	1.95	1.49	1.05
22074CR	D-sub 25-pin female	1.99	1.79	1.65



## AT and PS/2 Keyboard Adapters



- 159089CR/189771CR: AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN
- 159097CR: PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
159089CR	1.6"	Metal	\$2.95	\$2.65	\$2.39
159097CR	1.4"	Metal	2.95	2.65	2.39
189771CR	1.7"	Plastic	2.95	2.65	2.39

### Special Limited Offers from Other Manufacturers

## PS/2 Keyboard Adapter

- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
157930CR	1.7"	Plastic/metal	\$2.65	\$2.25	\$1.69

## Gender Benders Save Money

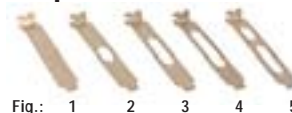
I have a box of cables for those "just in case" situations. I go to it five or six times a year. Usually a cable turns up that is almost right; perhaps a PS/2 extension cable when I need a PS/2 to AT cable.

My solution? While I have the most common cables in my stash box, I also keep a supply of gender benders (i.e., changers) with the cables. When a situation comes up, I usually have the solution immediately available. Later, I replace the improvised solution with the right cable and reclaim my gender changer(s). I'm a hero to the person with the problem, and I don't spend inordinate amounts of time looking for a solution.



**Practical Practices**  
Money Saving Tips for the Engineer

## Computer Card Brackets



- For securing cards into bus slots
- Fits standard PC/XT/AT cases
- Length: 4.75"
- See pg 83 for DB connectors

Part No.	Description	Fig.	1	10	100
11754CR	Blank back panel	1	\$1.79	\$1.59	\$1.45
101717CR	For DB9 connector	2	1.79	1.59	1.45
101733CR	For DB25 connector	3	1.79	1.59	1.45
101741CR	For DC37 connector	4	1.79	1.59	1.45
101830CR	For DB9/DB25 conn.	5	1.79	1.59	1.45

## Panel Bracket Cable Assemblies

- Standard computer back panel brackets
- Length: 12"
- Ribbon cable with header connector



Part No.	Description	1	10	25
149614CR	DB9M to 10-pin header			
	DB25M to 10-pin header	\$4.95	\$4.45	\$3.99
149622CR	DB25 to 26-pin header	4.95	3.75	2.65
179995CR	DB9M to 10-pin header			
	DB25M to 10-pin header			
	DB25F to 26-pin header	1.19	1.01	.76

## SCSI Adapters



- See below for SCSI-type connector guide

Part No.	Description	1	10	50
133920CR	50-pin ribbon header			
	SCSI-I to DB25 female	\$6.95	\$6.25	\$5.59
125241CR	50-pin ribbon header to HPDB50 SCSI-II female	9.95	8.45	6.35
167370CR	DB25 female to HPDB50 male SCSI-II	3.55	3.20	2.91

### SCSI TYPE / CONNECTOR REFERENCE TABLE

SCSI type	50-pin Centronics DB25	50-pin Centronics DB25	Half pitch DB50	Half pitch DB68	VHD8 Centronics	VHD8 Centronics
SCSI-I	✓	✓	✓			
SCSI-II			✓	✓		
SCSI-II wide					✓	
SCSI-III					✓	✓
RAID: SCA, SCA-2						✓

## Corporate Customers

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for details today.



## D-Sub 9-Pin to 25-Pin Serial Adapters

10321CR: For PC/XT systems with DB25 serial ports.

139985CR: gold-plated contacts, extra long thumbscrews



Part No.	Description	1	10	100
10321CR	DB9 M to DB25 F	\$4.49	\$3.79	\$3.19
189632CR	DB9 M to DB25 M	3.49	3.15	2.85
139985CR	DB9 F to DB25 F	3.95	3.55	3.19

### Special Limited Offers from Other Manufacturers

## D-Sub 9-Pin to 25-Pin Serial Adapters

10305CR: For use in AT or other computer systems that have 9-pin D-subserial ports.

163740CR/153576CR: For PC/XT systems with DB25 serial ports.



Part No.	Description	1	10	100
10305CR	DB9 F to DB25 M	\$3.15	\$2.69	\$1.99
163740CR	DB9 M to DB25 F, thumbscrews on DB9 side only	2.55	2.19	1.65
153576CR	DB9 M to DB25 F, thumbscrews on DB25 side only	3.55	2.99	2.25



## Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.



Internal pin configuration:

17224CR: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20  
26243CR: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7

Part No.	Description	1	10	100
26243CR	DB25 M to DB25 F	\$3.95	\$3.65	\$3.49
17224CR	DB25 F to DB25 F	3.49	2.95	2.49

## Amphenol

### BNC Connectors and Adapters

- Frequency range: 0-4GHz
- Working voltage: 500V
- Contact plating: silver/gold
- Body plating: nickel/tin-lead
- Cable type:
  - 223351CR: RG58/58A/58C/141/303/LMR, Belden 7806A
  - 223360CR: RG55/141/142/223/400
  - 223394CR: RG59/62/71/140/210/302
  - 223474CR: RG59/62/140/210, Belden 8241/8263/8279/9209
  - 223693CR: RG5/9/87A/214/313/325



Part No.	Product No.	Fig.	Industry No.	Description	1	10	100
223351CR	31-2	1	UG-88/U	50Ω plug, straight, clamp/solder	\$3.99	\$3.39	\$2.55
223431CR	31-202	1	UG-88C/U	50Ω plug, straight, solder cup	3.99	3.30	2.79
223360CR	31-5	2	UG-89/U	50Ω jack, straight, clamp/solder	4.89	4.49	3.49
223378CR	31-8	3	UG-274/U	50Ω/75Ω T-adapter, jack-plug-jack	10.39	9.59	8.15
223458CR	31-208	3	UG-274A/U	50Ω T-adapter, jack-plug-jack	8.59	6.59	6.49
223386CR	31-9	4	UG-306/U	50Ω right angle adapter, jack-plug	13.55	10.25	8.59
223466CR	31-209	4	UG-306A/U	50Ω right angle adapter, jack-plug	12.19	10.99	9.39
223394CR	31-12	5	UG-260/U	50Ω plug, straight, clamp	7.49	5.79	5.65
223474CR	31-212	5	UG-260B/U	50Ω plug, straight, clamp/solder	3.75	3.29	2.65
223415CR	31-17	6	CW-159/U	50Ω male shorting cap	5.39	4.99	4.49
223423CR	31-102	7	UG-657/U	50Ω bulkhead receptacle, straight, solder cup	5.19	4.75	4.69
223440CR	31-203	8	UG-290A/U	50Ω receptacle, straight/flange, solder cup	5.95	5.42	4.65
223482CR	31-218	9	UG-491A/U	50Ω in-series adapter, plug-plug	8.15	7.15	5.99
223491CR	31-219	10	UG-914/U	50Ω in-series adapter, jack-jack	4.39	3.59	2.49
223503CR	31-220H	11	UG-492A/U	50Ω in-series adapter, jack-jack	7.59	6.99	6.25
223554CR	31-3220	12	UG-492D/U	50Ω bulkhead adapter, straight, jack-jack	11.65	8.85	7.99
223511CR	31-221	13	UG-1094/U	50Ω bulkhead receptacle, straight, solder cup	2.19	1.99	1.25
223538CR	31-2221	14	UG-1094A/U	50Ω bulkhead receptacle, straight, solder cup	2.69	2.25	1.59
223520CR	31-236	13	UG-625B/U	50Ω bulkhead receptacle, straight, pin/pin	2.49	2.19	1.29
223685CR	5575	13	UG-625/U	50Ω bulkhead receptacle, solder	4.45	3.39	3.15
223693CR	6775	15	UG-959/U	50Ω right angle plug, clamp/solder	12.59	9.99	9.75

## Amphenol

### UHF Connectors and Adapters

- Frequency range: 0-300MHz
- Working voltage: 500V
- Contact plating: nickel & silver
- Cable type:
  - 223600CR/223618CR/223677CR: RG8/9/87A/214/313/225
  - 223651CR: RG58/141



Part No.	Product No.	Fig.	Industry No.	Description	1	10	100
223562CR	83-1AP	1	UG-646/U	In-series right angle adapter, jack-plug	\$7.19	\$5.79	\$5.75
223571CR	83-1F	2	UG-363/U	In-series bulkhead adapter, socket-socket	13.79	10.25	9.99
223589CR	83-1J	3	PL-258	In-series straight adapter, jack-jack	6.99	5.99	5.29
223837CR	83-1T	4	M-358	In-series T-adapter, jack-plug-jack	11.19	8.99	8.75
223597CR	83-1R	5	SO-239	Non-constant impedance panel receptacle, solder cup	2.99	2.55	1.65
223669CR	83-798	5	SO-239A	Non-constant impedance panel receptacle, solder cup	5.25	3.99	3.59
223600CR	83-1SP	6	PL-259	Non-constant impedance plug, straight, solder-solder	3.09	2.87	1.69
223618CR	83-1SP-1050	7	PL-259	Non-constant impedance plug, straight, solder-solder	1.69	1.52	1.15
223677CR	83-822	7	PL-259	Non-constant impedance plug, straight, solder-solder	3.89	2.99	2.59
223651CR	83-765	8	UG-177/U	Hood for 83-1R, above	2.55	1.99	1.69

## Amphenol

### BNC 50Ω Cable Plugs

#### BNC 3-Piece

- Silver-plated
- Frequency range: 0-4GHz with low reflection
- Attachment (outer/inner): crimp/crimp

188306CR: RG58/184

188349CR: RG174/188/316



Part No.	Product No.	1	10	25	100
188306CR	31-320-RFX	\$1.49	\$1.26	\$1.03	\$0.90
188349CR	31-315-RFX	1.89	1.63	1.22	.96

## Amphenol

### BNC Adapters



- Frequency range: 0-4GHz with low reflection

188411CR: Straight jack-to-jack

188429CR: Jack-plug-jack

188402CR: Gasketed jack-to-jack

Part No.	Product No.	1	10	25	100
188411CR	31-219-RFX	\$2.99	\$2.66	\$2.35	\$1.95
188429CR	31-208-RFX	4.45	3.37	2.28	1.99
188402CR	31-220G-RFX	3.29	2.94	1.99	1.83

## Amphenol

### Type N Crimp Plug

- Silver-plated
- RG58/141
- Attachment (outer/inner): crimp/crimp



Part No.	Product No.	1	10	50	100
188445CR	82-5375-RFX	\$4.35	\$3.29	\$2.50	\$2.25

## Amphenol

### SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG174/U, RG188/U, and RG316/U cables



Part No.	Product No.	1	10	50	100
188488CR	901-9877-RFX	\$2.49	\$2.25	\$1.99	

## Amphenol

### SMA PCB Jacks

- Application: cellular phone, data communication, instrumentation, and video
- 50Ω impedance
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C



Part No.	Product No.	1	10	50	100
188509CR	901-144-8-RFX	\$3.69	\$3.35	\$2.99	\$2.69
188525CR	901-143-6-RFX	5.95	4.95	3.79	3.45

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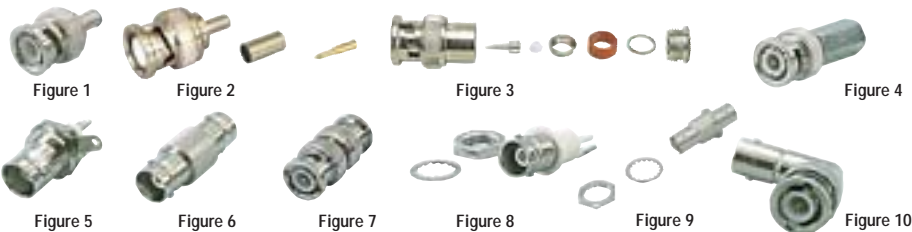


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## BNC Coax Connectors

- Miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz



Part No.	Fig.	Description	1	10	100	500
71458CR	1	BNC male terminator (50Ω)	\$1.55	\$1.15	\$0.99	\$0.89
71790CR	1	BNC male terminator (75Ω)	1.35	1.09	.89	.73
135618CR	2	BNC male with pin and ferrule (RG6)	.89	.69	.45	.39
71482CR	2	BNC male with pin and ferrule (RG58)	1.65	1.49	1.35	1.25
71271CR	2	BNC male with pin and ferrule (RG59/62)	.81	.66	.59	.54
112109CR	2	BNC male with pin and ferrule (RG174)	1.59	1.45	1.29	1.15
119394CR	3	BNC male clamp-on (RG59/62)	1.39	1.25	1.15	.89
108994CR	4	BNC male twist-on (RG58)	1.49	1.35	1.19	.95
71781CR	4	BNC male twist-on (RG59/62)	1.09	.99	.89	.79
71589CR	5	BNC female panel mount (UG-1094A)	1.49	1.35	1.25	1.09
71909CR	6	BNC female/female coupler (UG-914)	1.29	.99	.85	.74
127343CR	7	BNC male/male coupler (UG-491B/U)	1.99	1.79	1.39	1.29
111561CR	8	BNC female isolated bulkhead	2.29	1.99	1.79	1.59
148224CR	9	BNC female bulkhead feed-thru	1.99	1.79	1.59	1.39
148232CR	9	BNC female isolated bulkhead feed-thru	2.49	2.25	1.79	1.35
127351CR	10	BNC M-F right angle (DG-306B/O)	2.49	2.19	1.85	1.59
160928CR	11	BNC female, crimp type (RG58)	1.25	1.09	.99	.89
161921CR	11	BNC female, crimp type (RG174)	1.49	1.35	1.19	1.05
174289CR	12	BNC female chassis mount	1.19	.98	.88	.79
174297CR	13	BNC female twist-on bulkhead	2.25	2.02	1.62	1.22
174254CR	14	BNC male to F connector female	1.99	1.59	1.45	1.19
207183CR	15	BNC male to RG58/59 crimp on	3.99	3.59	2.89	2.15

JAMECO ValuePro

## BNC PCB Connectors

- Maintains matching impedance at 50Ω & 75Ω. Ideal for LAN cards & precision video

Part No.	Description	Length (L)	1	10	100	500
146510CR	BNC right-angle plastic insulation	1.37"	\$1.95	\$1.75	\$1.49	\$1.25
161656CR	BNC right-angle metal	.861"	2.29	1.99	1.79	1.59

Special Limited Offers from Other Manufacturers

- 146528CR: Ideal for applications where multiple insertions require a connector which can endure the stress of high torque

Part No.	Description	Length (L)	1	10	100	500
146528CR	BNC straight metal	.719"	\$2.79	\$2.55	\$2.29	\$2.05
210884CR	BNC straight/panel mount metal	.830"	2.29	2.05	1.67	1.25

JAMECO ValuePro

## BNC Adapters

- Silver-plated • General purpose coax T-adapter • ThinNet/Ethernet LAN adapter

Part No.	Description	1	10	100	500
118594CR	Male to female/female T-adapter	\$2.39	\$2.15	\$1.75	\$1.25
207108CR	Quad female adapter	3.99	3.49	2.99	2.49
207095CR	Female to male/male T-adapter	6.99	6.25	5.59	4.99
72629CR	Female to female/female T-adapter	2.49	2.25	1.99	1.69
207087CR	Female to male/female T-adapter	9.95	8.95	6.45	5.39
100597CR	Male to female/female T-adapter (180°)	5.99	5.39	4.85	3.99
207116CR	Male to female/female/female T-adapter	7.19	6.45	5.79	4.95
117461CR	Male to female/female F-adapter (90°)	4.29	3.89	3.49	2.99
207124CR	Male/male to female/female T-adapter	4.49	4.05	3.25	2.45
207167CR	RCA female to BNC female	1.99	1.79	1.59	1.39
114788CR	RCA female to BNC male adapter	1.35	1.05	.99	.98
207175CR	RCA male to BNC male	1.99	1.79	1.59	1.39
114753CR	RCA male to BNC female adapter	1.59	1.45	1.29	1.09
114770CR	BNC female to "F" connector male adapter	1.79	1.59	1.39	1.19
207141CR	3.5mm mono male to BNC female	1.69	1.49	1.27	.95



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## BNC Male Coax Cables



Part No.	Description	1	10	50	100
176794CR	3' BNC to BNC	\$3.95	\$3.55	\$3.19	\$2.89
176815CR	6' BNC to BNC	4.95	4.49	4.05	3.35

### RG6 75Ω Cables

Part No.	Description	1	10	50	100
176794CR	3' BNC to BNC	\$3.95	\$3.55	\$3.19	\$2.89
176815CR	6' BNC to BNC	4.95	4.49	4.05	3.35

### RG58/U 50Ω Cables

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
181307CR	CRG58-1RR	1	\$3.65	\$3.29	\$2.95	\$2.75
102314CR	CRG58-1	1.5	3.99	3.49	2.99	2.49
256743CR	CBB-224-24	2	9.75	9.39	8.89	7.99
11404CR	CRG58-3	3	4.29	3.89	3.49	3.15
256760CR	CBB-224-72	6	12.19	11.75	11.12	9.99
102331CR	CRG58-6	6	4.39	3.99	3.59	3.19
152311CR	RG58MF-6*	6	2.95	2.66	2.12	1.59
180822CR	CRG58-10	10	4.49	3.99	3.40	2.99
102349CR	CRG58-12	12	4.95	4.49	3.99	3.39
169818CR	CRG58-15	15	4.95	4.46	3.56	2.67
102381CR	CRG58-100	100	13.49	12.14	9.71	7.28

\*152311CR has male and female coax connectors

Special Limited Offers from Other Manufacturers

102357CR	CRG58-25	25	\$6.49	\$5.84	\$4.67	\$3.44
102365CR	CRG58-50	50	9.49	8.54	6.83	5.12

### RG59/U 75Ω Cables

- For CATV and video patch cords

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
86471CR	CRG59-1	1.5	\$2.99	\$2.69	\$2.45	\$2.19
85542CR	CRG59-6	6	3.75	3.39	2.73	2.05
102373CR	CRG59-12	12	5.49	4.95	4.45	3.99
262730CR	EBC-525	25	10.45	10.25	9.95	9.50
262748CR	EBC-550	50	17.05	16.25	15.45	14.69
262764CR	EBC-510	100	30.39	28.89	27.45	25.99

### RG174/U 50Ω Cables

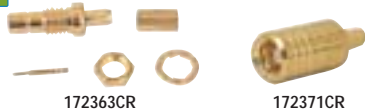
- For Ethernet networks, oscilloscopes

Part No.	Mfr. Cross Ref. No.	Length (ft.)	1	10	50	100
111472CR	RG174U3	3	\$3.85	\$3.49	\$3.15	\$2.85
111481CR	RG174U6	6	4.59	4.15	3.75	3.35





## SMB Connectors



- For use with RG-174 coax
- 50Ω crimp type • Gold plated
- Use with crimping tool P/N 114534CR, pg 203

Part No.	Description	1	10	50
172363CR	Bulkhead crimp jack .....	\$3.49	\$2.95	\$2.49
172371CR	Cable crimp plug .....	4.29	3.89	3.49



## SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper



Part No.	Description	1	10	50
167311CR	Right angle PCB .....	\$4.45	\$3.89	\$3.25



## SMA/SMB 50Ω Coax Cables

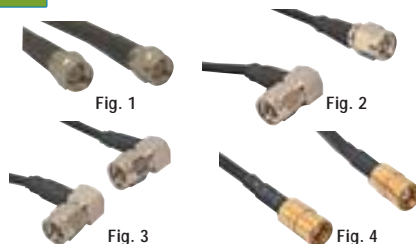


Fig. 1: SMA male to SMA male  
Fig. 2: SMA male to SMA right angle male  
Fig. 3: SMA right angle male to SMA right angle male  
Fig. 4: SMB male plug to SMB male plug

Part No.	Cable	Fig.	Lgth (ft.)	1	10	50
159370CR	RG58	1	2 .....	\$4.49	\$3.99	\$3.49
159396CR	RG58	1	6 .....	5.49	4.89	4.19
169800CR	RG174	1	0.5 .....	5.59	4.99	4.55
163854CR	RG174	1	1 .....	4.49	3.95	3.39
153381CR	RG174	1	2 .....	4.95	4.29	3.39
153390CR	RG174	1	4 .....	5.49	4.75	4.29
159450CR	RG174	1	4 .....	6.79	6.15	5.55
175126CR	RG174	2	0.5 .....	4.49	3.95	3.49
175134CR	RG174	2	1 .....	4.95	4.25	3.75
175142CR	RG174	3	0.5 .....	5.75	5.25	4.49
175151CR	RG174	3	1 .....	6.25	5.75	4.75
175169CR	RG174	4	0.5 .....	4.25	3.19	2.25
175177CR	RG174	4	1 .....	5.29	4.79	3.95



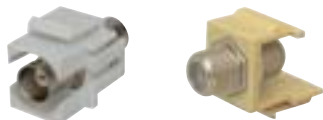
## F-Type 75Ω Coax Cable

- Low signal loss
- Strain relief
- Male to male F-type



Part No.	Cable	Lgth (ft.)	1	10	50	100
85585CR	RG59	3 .....	\$1.05	\$0.95	\$0.85	\$0.79

For BNC/F-Type  
Keystone Style Jacks,  
see page 74.



## SMA Connectors, Adapters and Couplers



- Application: cellular phone, data communication, instrumentation, and video
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C
- 50Ω impedance
- Plating: gold and nickel

### Connectors

Part No.	Description	Cable Type	Plated	1	10	50	100
157972CR	SMA 50Ω crimp type male plug connector	RG58	Gold .....	\$3.99	\$3.59	\$3.29	\$2.99
153365CR	SMA 50Ω crimp type male plug connector	RG174	Gold .....	4.39	3.95	3.55	3.19
145381CR	SMA straight female PCB mount connector, 4 legs	—	Gold .....	5.25	4.75	4.25	3.49
145373CR	SMA 90° female PCB mount connector, 4 legs	—	Gold .....	7.39	6.65	5.95	5.39
153285CR	SMA bulkhead solder female w/ washer, rear mount	RG58/174	Gold .....	3.49	3.15	2.85	2.59
159530CR	SMA female panel mount conn., 4 mounting holes*	RG58/174	Gold .....	2.95	2.65	2.35	2.10
160021CR	SMA female panel mount conn., 2 mounting holes*	RG58/174	Gold .....	3.99	3.59	3.25	2.95
160012CR	Panel mount feed thru connector female – female	—	Nickel .....	4.99	4.49	3.99	3.49

\* 159530CR/160021CR: Solder cup



### Couplers



Part No.	Description	Plated	1	10	50	100
153293CR	SMA straight coupler female – jack-to-jack	Gold .....	\$3.85	\$3.39	\$2.19	\$1.79
161277CR	SMA 3-way coupler, 1 male – 2 female	Gold .....	3.49	3.15	2.85	2.45
161293CR	SMA Straight coupler male – male	Gold .....	3.65	3.29	2.95	2.75
161306CR	SMA Right angle coupler male – female	Gold .....	4.99	4.49	3.99	3.65



### SMA to BNC Adapters



Part No.	Description	Plated	1	10	50	100
153453CR	SMA female to BNC male adapter	Nickel .....	\$2.49	\$2.25	\$1.99	\$1.79
159468CR	SMA female to BNC female adapter	Nickel .....	2.69	2.45	2.19	1.99
153592CR	SMA male to BNC male adapter	Nickel .....	3.99	3.59	3.19	2.89
159476CR	SMA male to BNC female adapter	Nickel .....	2.99	2.69	2.45	2.19

## Cinch

## Jones Plugs and Sockets

### Multiple-Density Solder-Eyelet Connectors with Hood and 180° Clamp

- Insulation material: molded mono-block, black phenolic
- Contact material: plug–brass; socket–phosphor bronze
- Contact plating: cadmium
- Hood material: UL 94V-0 rated thermoplastic
- Operating voltage: 250 VAC RMS maximum
- Current rating: 10 amps
- Contact resistance: 16mΩ maximum



### Plugs

Part No.	Product No.	Contacts	1	25
248760CR	P-302-CCT	2 .....	\$2.15	\$1.96
248778CR	P-303-CCT	3 .....	2.37	2.15
248786CR	P-304-CCT	4 .....	2.73	2.47
248794CR	P-306-CCT	6 .....	2.89	2.62

### Sockets

Part No.	Product No.	Contacts	1	25
248807CR	S-302-CCT	2 .....	\$2.29	\$2.11
248815CR	S-303-CCT	3 .....	2.67	2.43
248823CR	S-304-CCT	4 .....	2.70	2.46
248831CR	S-306-CCT	6 .....	3.08	2.80

## We'll Send It Today!

Don't worry about backorders. Over 99% of our products are in stock!  
Just place your order by 6PM EST for same business day shipment.



## Terminal Blocks and Header

- For detailed specifications, please see our website at [www.Jameco.com](http://www.Jameco.com)
- 164814CR: Male header (.197") for use with 164793CR and 164806CR

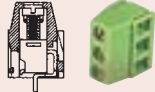


Fig. 1 (99397CR)

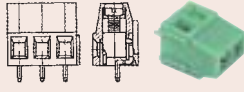


Fig. 2 (160784CR)



Fig. 3 (161066CR)



Fig. 4 (189675CR)



Fig. 5 (164793CR)



Fig. 6 (164806CR)



Fig. 7 (249084CR)



Fig. 8 (152346CR)



Fig. 9 (164814CR) use with Fig. 5 & 6

Part No.	Mfg.	Product No.	Fig.	Term.	Terminal Spacing	1	10	100	1000
99426CR	Dinkle	DT128/2	1	2	.197"/5mm	.72	.55	.44	.40
99397CR	Dinkle	DT128V3P	1	3	.197"/5mm	.99	.89	.79	.59
160784CR	Dinkle	EK500V-02P	2	2	.197"/5mm	.65	.55	.45	.39
160792CR	Dinkle	EK500V-03P	2	3	.197"/5mm	.95	.85	.75	.69
161066CR	Dinkle	EK500A-02P	3	2	.197"/5mm	.75	.65	.49	.39
161058CR	Dinkle	EK500A-03P	3	3	.197"/5mm	.95	.85	.75	.69
189675CR	OST	EDC500/2DS	4	2	.197"/5mm	.79	.71	.64	.58
189667CR	OST	EDC500/3DS	4	3	.197"/5mm	.89	.80	.72	.61
164793CR	OST	EDC130/2DS	5	2	.197"/5mm	.59	.53	.47	.42
164806CR	OST	EDC130/3DS	6	3	.197"/5mm	.84	.76	.62	.54
249084CR	OST	EDZ750/3	7	3	.200"/5.08mm	1.49	1.39	1.19	.89
152346CR	OST	EDC120/2DS	8	2	.200"/5.08mm	.65	.55	.45	.39
152354CR	OST	EDC120/3DS	8	3	.200"/5.08mm	.47	.44	.39	.30
164814CR	OST	EDSTL130/24	9	24	.197"/5mm	2.25	1.95	1.75	1.49



## Double Row Terminal Blocks

- Voltage rating: 250VAC RMS max.
- Insulation: molded mono block, general purpose phenolic, black, UL rated 94V-1
- Eyelet material: brass with nickel plating
- Screw material: steel with nickel over copper flash plating
- Solder terminal material: brass with electro-tin plating



### 140 Series 15A

- 3750-watts per terminal max.
- 16 AWG wire max.
- Screw: 5-40 x 3/16"
- Size: 0.88"W x 0.41"H
- Density: .375"

Part No.	Prod. No.	Pos.	Length	1	10	100
230973CR	2-140	2	1.41"	\$.99	\$.89	\$.74
230981CR	3-140	3	1.78"	1.29	1.15	.95
230990CR	4-140	4	2.16"	1.45	1.29	1.05
231001CR	5-140	5	2.53"	1.59	1.44	1.18
231010CR	6-140	6	2.91"	1.99	1.79	1.48
231028CR	7-140	7	3.28"	2.19	1.95	1.59
231036CR	8-140	8	3.66"	2.49	2.24	1.83
231044CR	9-140	9	4.03"	2.79	2.49	2.03
231052CR	10-140	10	4.41"	3.25	2.89	2.35
231061CR	12-140	12	5.16"	3.55	3.15	2.59

### 141 Series 20A

- 5000-watts per terminal max.
- 14 AWG wire max.
- Screw: 6-32 x 1/4"
- Size: 1.13"W x 0.5"H
- Density: .438"

Part No.	Prod. No.	Pos.	Length	1	10	100
231351CR	2-141	2	1.63"	\$.99	\$.85	\$.72
231360CR	3-141	3	2.10"	1.69	1.45	1.09
231378CR	4-141	4	2.50"	1.79	1.59	1.25
231386CR	5-141	5	2.94"	1.85	1.64	1.33
231394CR	6-141	6	3.38"	1.99	1.75	1.45
231407CR	7-141	7	3.81"	2.49	2.25	1.85
231415CR	8-141	8	4.25"	2.79	2.35	1.94
231423CR	9-141	9	4.69"	2.99	2.59	2.19
231431CR	10-141	10	5.13"	3.19	2.79	2.29
231440CR	12-141	12	6.00"	3.59	3.29	2.69



## DIN Rail-Mounted Terminal Block and DIN Rail

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.

- Molded thermoplastic
- Spacing: 5.06mm (.199")
- UL rated voltage and current: 600V @ 20A
- 14-22 AWG

Part No.	Product No.	Type	1	10	100
237083CR	41296.2	SR2.5	\$.89	\$.79	\$.69
248735CR	2094.0	TS35x7.5	6.79	5.45	4.10



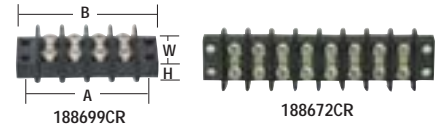
Sold in 1 meter (39") length

## European Terminal Blocks

- Number of poles: 12
- 1.2mm raised base
- Working temperature: 230°F (110°C)
- Material: Polyamide 66 (nylon 66), UL94V2, natural
- Terminal insert: brass metal alloy, nickel plated
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed

Part No.	Prod. No.	Amps	AWG	1	10	100
215010CR	PA8H	20A	12-22	\$1.79	\$1.59	\$1.29
215028CR	PA10H	30A	10-22	1.89	1.69	1.39
215036CR	PA12H	35A	10-22	2.59	2.29	1.99

## KULKA® 601 GP Series Double Row Terminal Blocks



- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated
- .437" (11 mm) centers
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved

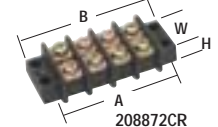
Part Number	Product Number	Poles	Dimensions A" B"	1	10	50
188699CR	601GP4	4	2.19 2.50	\$1.69	\$1.49	\$1.35
188681CR	601GP6	6	3.06 3.38	2.39	2.19	1.89
188672CR	601GP8	8	3.94 4.25	2.95	2.75	2.49
188664CR	601GP10	10	4.81 5.13	3.49	3.25	2.95
188701CR	601GP12	12	5.69 6.00	5.49	4.95	3.95

## Metric Double Row Terminal Blocks

- Wire gauge range: 12-18 AWG
- Body Material: black thermoplastic (UL94V-0)
- Terminals: brass tin plated
- Screws: steel nickel plated
- Insulation withstanding voltage: 2000VAC min.
- Insulation resistance: 1000MΩ or more at 500VDC

### 10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm



Part Number	Product Number	Poles	Dimensions A B	1	10	50
208856CR	GGE-10-4P	4	47.5 55	\$.99	\$.89	\$.79
208864CR	GGE-10-6P	6	64.5 74	1.39	1.25	1.15
208872CR	GGE-10-8P	8	94.5 102.5	1.69	1.59	1.49
208899CR	GGE-10-10P	10	104.5 112	2.39	2.15	1.89
208881CR	GGE-10-12P	12	123.5 131	2.79	2.49	2.25

### 20A @ 600V

- Screw size: M3.5
- Width (W): 22.0mm
- Height (H): 13.2mm



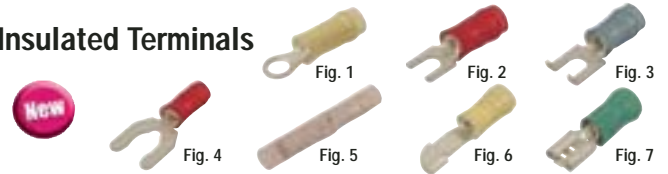
Part Number	Product Number	Poles	Dimensions A B	1	10	50
207538CR	GGE-20-4P	4	54.5 63.5	\$1.39	\$1.25	\$1.10
207546CR	GGE-20-6P	6	76.3 85.3	1.99	1.79	1.59
207554CR	GGE-20-8P	8	98.1 107.1	2.59	2.35	2.15
207562CR	GGE-20-10P	10	119.9 128.9	3.29	2.99	2.69
207571CR	GGE-20-12P	12	141.7 150.7	3.59	3.19	2.79



**AMP P.I.D.G (Pre-Insulated Diamond Grip) Nylon Insulated Terminals**

Designed for complete and uniform reliability. Nylon insulated terminals feature a tin plated copper body with copper sleeve fitted over the terminal barrel to provide maximum insulation support.

- High dielectric strength
- Temperature rating: 105°C
- Funnel ramp entry
- Copper support sleeve for insulation
- Meets MIL-T-7928

**Ring Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302594CR	323912	1	#2	26-22	Yellow	\$.21	\$.208	\$.186
302607CR	323914	1	#4	26-22	Yellow	.22	.215	.192
302615CR	323915	1	#6	26-22	Yellow	.21	.208	.186
302623CR	323916	1	#8	26-22	Yellow	.26	.251	.224
302631CR	324075	1	#10	26-22	Yellow	.29	.283	.171
302640CR	328657	1	#2	22-16	Red	.21	.208	.186
302658CR	31880	1	#4	22-16	Red	.21	.19	.15
302666CR	36152	1	#6	22-16	Red	.20	.145	.133
302674CR	31890	1	#8	22-16	Red	.20	.15	.133
302682CR	36154	1	#10	22-16	Red	.20	.15	.133
302691CR	31894	1	1/4"	22-16	Red	.26	.251	.172
302703CR	31895	1	5/16"	22-16	Red	.25	.242	.215
302711CR	31897	1	3/8"	22-16	Red	.31	.305	.176
302720CR	320619	1	#6	16-14	Blue	.20	.145	.133
302738CR	320565	1	#8	16-14	Blue	.20	.145	.133
302746CR	36160	1	#10	16-14	Blue	.20	.145	.133
302754CR	321045	1	1/4"	16-14	Blue	.20	.169	.162
302762CR	328998	1	5/16"	16-14	Blue	.25	.244	.167
302771CR	328999	1	3/8"	16-14	Blue	.29	.284	.172
302789CR	35149	1	#6	12-10	Yellow	.28	.182	.17
302797CR	35108	1	#8	12-10	Yellow	.20	.189	.171
302800CR	35109	1	#10	12-10	Yellow	.20	.189	.171
302818CR	35110	1	1/4"	12-10	Yellow	.335	.327	.218
302826CR	35111	1	5/16"	12-10	Yellow	.335	.327	.218
302834CR	35112	1	3/8"	12-10	Yellow	.335	.327	.218
302842CR	35151	1	1/2"	12-10	Yellow	.52	.286	.268

**Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302851CR	328394	2	#2	22-16	Red	\$.21	\$.208	\$.185
302869CR	327717	2	#4	22-16	Red	.26	.253	.225
302877CR	34541	2	#6	22-16	Red	.20	.145	.133
302885CR	32053	2	#8	22-16	Red	.214	.208	.185
302893CR	32054	2	#10	22-16	Red	.214	.208	.175
302906CR	35559	2	#6	16-14	Blue	.21	.208	.146
302914CR	32059	2	#8	16-14	Blue	.214	.208	.185
302922CR	321233	2	#8	16-14	Blue	.242	.236	.21
302931CR	32060	2	#10	16-14	Blue	.242	.236	.146
302949CR	326859	2	#6	12-10	Yellow	.419	.416	.37
302957CR	32588	2	#8	12-10	Yellow	.31	.309	.275
302965CR	32589	2	#10	12-10	Yellow	.307	.256	.24

**Flanged Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
302973CR	324608	3	#2	22-16	Red	\$.279	\$.273	\$.243
302981CR	32562	3	#6	22-16	Red	.233	.227	.158
302990CR	32498	3	#8	22-16	Red	.50	.451	.438
303001CR	320861	3	#6	16-14	Blue	.233	.23	.159
303010CR	320862	3	#8	16-14	Blue	.233	.23	.204
303028CR	320863	3	#10	16-14	Blue	.225	.224	.199
303036CR	325150	3	#6	12-10	Yellow	.59	.493	.461
303044CR	32510	3	#8	12-10	Yellow	.25	.223	.19
303052CR	324015	3	#10	12-10	Yellow	.39	.288	.269

**Short Spring Spade Tongue Terminals**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
303061CR	82927	4	#4	22-16	Red	\$.214	\$.209	\$.186
303079CR	52929	4	#6	22-16	Red	.242	.238	.164
303087CR	52930	4	#8	22-16	Red	.242	.238	.212
303095CR	52931	4	#10	22-16	Red	.353	.345	.258
303108CR	52935	4	#6	16-14	Blue	.242	.238	.164
303116CR	52936	4	#8	16-14	Blue	.28	.27	.24

**Short Spring Spade Tongue Terminals (Continued)**

Part No.	Product No.	Fig.	Stud Size	Wire (AWG)	Color	1	10	100
303124CR	52937	4	#10	16-14	Blue	\$.28	\$.27	\$.24
303132CR	52941	4	#6	12-10	Yellow	.32	.31	.248
303141CR	52942	4	#8	12-10	Yellow	.36	.35	.282
303159CR	52943	4	#10	12-10	Yellow	.36	.351	.282

**Butt & Knife Disconnect Splices**

Part No.	Product No.	Fig.	Description	Wire (AWG)	Color	1	10	100
303167CR	323994	5	Butt	26-22	Yellow	\$.39	\$.339	\$.317
303175CR	320559	5	Butt	22-16	Red	.50	.496	.356
303183CR	320562	5	Butt	16-14	Blue	.57	.496	.295
303191CR	320570	5	Butt	12-10	Yellow	.85	.82	.499
303204CR	32446	6	Knife disconn.	22-16	Red	.42	.411	.27
303212CR	32448	6	Knife disconn.	16-14	Blue	.42	.411	.27
303221CR	35762	6	Knife disconn.	12-10	Yellow	1.45	1.24	1.11

**Fast-On Receptacles**

Part No.	Product No.	Fig.	Size (in.)	Wire (AWG)	Color	1	10	100
303239CR	60894-1	7	.110 x .032	22-18	Natural	\$.24	\$.232	\$.168
303247CR	640923-1	7	.110 x .020	22-18	Red	.22	.214	.163
303255CR	640917-1	7	.187 x .020	22-18	Red	.20	.162	.13
303263CR	640909-1	7	.205 x .020	22-18	Red	.22	.214	.163
303271CR	640911-1	7	.205 x .032	22-18	Red	.22	.214	.163
303280CR	640903-1	7	.250 x .032	22-18	Red	.20	.16	.13
303298CR	640929-1	7	.110 x .020	16-14	Blue	.22	.214	.163
303301CR	640919-1	7	.187 x .020	16-14	Blue	.22	.214	.163
303319CR	640915-1	7	.205 x .032	16-14	Blue	.22	.214	.163
303327CR	640905-1	7	.250 x 0.32	16-14	Blue	.20	.162	.16
303335CR	42844-1	7	.250 x .032	14-12	Green	.31	.30	.215
303343CR	640907-1	7	.250 x .032	12-10	Yellow	.25	.237	.166

**Vinyl Insulated Solderless Terminals**

- Insulation thickness: .030"
- Funnel ramp entry
- Temperature to 105°C
- Use with crimping tool P/N 72995CR, pg 204
- Sold in increments of 10, 100 or 1000

**Ring & Spade Solderless Terminals**

Part No.	Description	Stud Size	Wire (AWG)	Color	10	100	1000
103683CR	Ring solderless	#6	22-16	Red	\$.11	\$.07	\$.05
103587CR	Spade solderless	#6	22-16	Red	.13	.06	.05
103595CR	Spade solderless	#8	16-14	Blue	.12	.068	.06

**Disconnect Solderless Terminals**

Part No.	Description	Blade Size	Wire (AWG)	Color	10	100	1000
106921CR	Female	.187"	22-16	Red	\$.12	\$.07	\$.05
103667CR	Female	.25"	22-16	Red	.12	.07	.05
109111CR	Female w/ hood	.25"	22-16	Red	.17	.11	.055

**171-Pc. Solderless Terminal Kit**

- Clear, hinged plastic box
- Use crimping tool P/N 72995CR, pg 204



Part No.	Description	1	10	25
10989CR	Terminal kit (170 terminals and connectors)	\$.895	\$7.95	\$7.25

# Cable Connectors, Power Jacks and Plugs

Color Code Legend  
New Sale Qty. Save

## 3M Spring Connectors



This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

**285683CR:** 2#22 to 2#12AWG, orange with blue skirt; replaces the orange, blue, and gray wire nut style connectors as well as 70% of the yellow wire nut and wing style connectors

**285691CR:** 2#18 to 2#8 to 5#12 AWG, red with yellow skirt, replaces both red and yellow wing style connectors

**285704CR:** 4#14 to 2#6 to 3#8 AWG, blue with gray skirt, covers both the large blue and gray connectors

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	10	100	500
285683CR	3M O/B+	\$.084	\$.075	\$.071
285691CR	3M R/Y+	.132	.106	.10
285704CR	3M B/G+	.37	.32	.253

## Wire Connectors



- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application • Twist on type
- Material: PVC with metal spring, except P/N 182449CR nylon 66, 94-2 and P/N 140716CR PE - metal inside

**182449CR:** UL/CSA approved

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	Color	10	100	1000
182449CR	Crimp 16-14 AWG*	Nat.....	\$.06	\$.055	\$.049
182511CR	Wire-nut 16 AWG	Blue .....	\$.045	.04	.035
140716CR	Wire IDC 22-18 AWG	Red .....	.15	.14	.10

\* Requires crimping tool (P/N 72995CR, pg 204)

## Telecom Splice Connectors

- Provides clean, solid, and rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes

**169754CR:** Y-Type

• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Color	Wire Gauge	No. of Conductors	10	100	1000
169746CR	Yellow	22-26	2 .....	\$.11	\$.10	\$.08
169754CR	Red	19-263Y	3Y .....	.15	.14	.12

Table Top Power Supplies and Wall Adaptors, see pages 146-154.

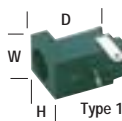
Power/Audio/RCA Plugs and Jacks, see pages 80 & 81.

## Male & Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel

Mounting	Code
Panel	C
PCB	D
Panel & PCB	E
Cable	F

Terminals	Code
Solder eyelet	A
PC board	B

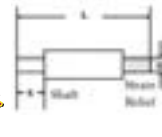


\* Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Dimensions H x W x D (mm)	Type/ Mount	Circuit/ Terminal	Mating Plug (below)	Pricing			
						1	10	100	1000
1.3 mm Male Jacks									
101194CR	PP024	6.0 x 6.0 x 9.0	8/D	1/B	1.3 mm female	\$.63	\$.49	\$.44	\$.39
265421CR	420ECS	7.3 x 5.0 x 11.5	1/D	1/B	1.3 mm female	.69	.55	.49	.45
2.1 mm Male Jacks									
101178CR	PP014	10.9 x 9.0 x 14.5	1/D	1/A	2.1 mm female	\$.49	\$.44	\$.39	\$.35
137672CR	PP013	10.9 x 9.0 x 14.5	5/D	3/A	2.1 mm female	.49	.44	.35	.26
151589CR	DPJ-02IA	13.0 x 12.6 Dia.	7/C	1/A	2.1 mm female	1.09	.93	.70	.65
151554CR	DPJ-026	15.1 x 8.0 Dia.	6/E	1/A	2.1 mm female	1.49	1.25	1.05	.89
159610CR	PJ1014A	35.8 x 12.6 Dia.	10/F	3/A	2.1 mm female	1.49	1.25	1.09	.89
2.5 mm Male Jacks									
109428CR	PJ025PCB	8.0 x 12.0 x 9.6	4/D	1/B	2.5 mm female	*	\$.19	\$.15	\$.11
207714CR	HEC0470	11.0 x 9.0 x 14.5	1/D	1/B	2.5 mm female	.45	.35	.29	.25
101186CR	PP014A	11.0 x 9.0 x 14.5	1/D	1/A	2.5 mm female	.59	.53	.48	.43
151562CR	DPJ-026A	15.1 x 8.0 Dia.	6/E	1/A	2.5 mm female	1.49	1.24	1.13	.99
159505CR	PJ1015A	35.8 x 12.6 Dia.	10/F	3/A	2.5 mm female	1.39	1.25	1.13	1.01
202358CR	HD2388	17.0 x 12.0 Dia.	7/C	3/A	2.5 mm female	1.09	.98	.88	.79
3.5 mm Female Jacks									
101143CR	PJ0352	10.0 x 10.0 x 18.5	2/E	2/A	3.5 mm male	\$.35	\$.25	\$.22	\$.19
109495CR	PJ035PM	10.5 x 9.0 x 8.8	3/C	2/A	3.5 mm male	.45	.40	.36	.32
165729CR	PJ0354	8.9 x 5.7 Dia.	9/C	3/A	3.5 mm male	.69	.59	.49	.39

## Male & Female Power Plugs

- Use with mating power jacks found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall adapters, pgs 151-154
- Shield crimp tabs
- Use 24 AWG 2 conductor wire, P/N 100280CR, to make custom length power cables, pg 70



Part Number	Mfr. Cross Ref. No.	Description Plug ID x OD (mm)	Dimensions (mm) S (shaft) x L x ID (strain relief)	Type	Pricing			
					1	10	100	1000
Female Plugs								
71191CR	PP137	1.3 x 3.5	9.6 x 43.9 x 4.8 (black)	1/A	\$.79	\$.71	\$.65	\$.59
191484CR	PP049W	2.1 x 5.5	9.6 x 43.9 x 4.5 (white)	1/A	.69	.62	.56	.50
28759CR	PP049	2.1 x 5.5 (P205)	8.5 x 41.4 x 4.6 (black)	1/A	.59	.49	.39	.29
147328CR	PP049L	2.1 x 5.5 (P205L)	14.0 x 46.4 x 4.6 (black)	1/A	.69	.62	.56	.50
138587CR	PJ021R	2.1 x 5.5 rt. angle	12.0 x 22.5 x 3.9 (black)	1/B	.79	.63	.55	.49
190537CR	PP109S	2.5 x 5.5 (P206S)	9.0 x 43.5 x 4.8 (black)	1/A	.39	.32	.29	.19
28767CR	PP109	2.5 x 5.5 (P206)	10.1 x 45.4 x 4.3 (black)	1/A	.59	.49	.39	.33
191492CR	PP109W	2.5 x 5.5	10.1 x 45.4 x 4.5 (white)	1/A	.39	.35	.28	.21
147336CR	PP109L	2.5 x 5.5 (P206L)	13.6 x 47.5 x 4.8 (black)	1/A	.75	.68	.61	.55
168241CR	PP109N	2.5 x 5.5	13.7 x 36.5 x 3.9 (black)	1/C	.59	.49	.43	.35
Male Plugs								
101135CR	PJ1025	2.5 (P201)	11.1 x 49.0 x 4.3 (black)	2/A	\$.59	\$.53	\$.39	\$.29
147459CR	PJ1025L	2.5 (P201L)	10.5 x 48.0 x 5.0 (black)	2/A	.35	.32	.25	.19
101151CR	PJ1035	3.5 (P202)	13.8 x 51.8 x 4.2 (black)	2/A	.55	.43	.36	.32
147344CR	PJ1035L	3.5 (P202L)	14.1 x 51.0 x 5.2 (black)	2/A	.55	.43	.36	.32

## Automobile Power Plug & Cord Assembly

- Screw assembly with strain relief
- Accepts .25" x 1.25" fuse
- Plugs directly into cigarette lighter
- 124759CR:** 3' cord pigtail end

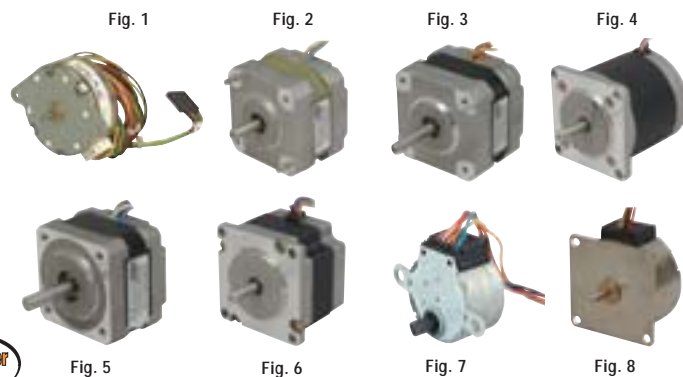
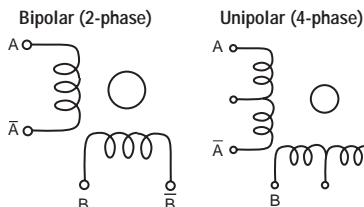
Part No.	Description	1	10	100
115001CR	W/ 5A/250VAC fuse .....	\$1.95	\$1.65	\$1.19
124759CR	W/ 3A/250VAC fuse & 3' cord .....	1.89	1.72	1.69



## GBM Bipolar and Unipolar Stepper Motors

Jameco offers the industry's widest variety of off-the-shelf two-phase bipolar and four-phase unipolar stepper motors for your precision applications. Be sure to check out the wide selection of 2 to 24 VDC models below.

- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998CR, pg 230, for shaft coupler



New Lower Prices

GBM is an ISO-9001 Certified Company

Part No.	Product No.	Fig.	Drive System	Voltage (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Weight (lbs.)	Pricing		
																		1	10	50
237526CR	42BYGH001	3	Bipolar	2	1.8	2.1	950	2.3	200	1700	1.22	0.10	0.20	0.95	1.67	1.34	0.50	\$16.49	\$14.85	\$13.35
237497CR	39BYG101-01	2	Bipolar	2.7	1.8	6.8	400	6.5	150	650	1.22	0.10	0.20	0.75	1.54	0.79	0.26	15.95	14.35	12.95
237420CR	35BYG002	3	Bipolar	3.2	1.8	4.8	800	3	15	50	1.02	0.10	0.20	0.83	1.38	1.02	0.30	15.95	14.35	12.95
237489CR	39BYG001	2	Bipolar	5	1.8	5	1000	—	150	1800	1.22	0.10	0.20	0.91	1.54	1.34	0.44	15.95	14.35	12.95
237737CR	42BY48H08	8	Bipolar	5	7.5	9.1	550	—	130	630	1.95	0.14	0.12	0.39	1.65	0.87	0.28	7.89	7.09	6.39
237577CR	57BYG061	4	Bipolar	6	1.8	12	500	24	—	3569	1.86	0.20	0.25	0.83	2.29	1.61	1.00	29.95	26.95	24.25
237518CR	42BYG017	2	Bipolar	6.3	1.8	15	420	16	150	1400	1.22	0.10	0.20	0.51	1.67	1.34	0.50	16.49	14.85	13.35
237454CR	39BYG201	2	Bipolar	9.6	1.8	20	480	—	200	1000	1.22	0.10	0.20	0.20	1.54	0.98	0.44	16.95	15.25	13.75
237411CR	35BYG005	2	Bipolar	12	1.8	20	500	—	1.5	10	1.02	0.10	0.20	0.83	1.38	1.10	0.37	15.95	14.35	12.95
155459CR	42BYG023*	2	Bipolar	12	1.8	30	400	36	220	2100	1.73	0.10	0.20	0.60	1.70	1.30	0.50	17.95	16.29	14.59
237471CR	39BYG401A	2	Bipolar	12	1.8	30	400	32	200	2100	1.22	0.10	0.20	0.95	1.54	1.34	0.44	19.49	17.55	15.79
237817CR	25BY2414	7	Bipolar	12	15	27	440	15.5	48	140	1.26	0.11	0.08	0.37	0.98	0.59	0.08	7.19	6.45	5.79
237462CR	39BYG401	2	Bipolar	14	1.8	31	400	32	200	2300	1.22	0.10	0.20	0.95	1.54	1.34	0.44	19.49	17.55	15.79
237446CR	35BYG008	2	Bipolar	24	1.8	1.3	1600	1	1	9	1.02	0.10	0.20	0.83	1.38	1.14	0.33	16.95	15.25	13.75
237569CR	57BYG009	4	Unipolar	2.4	1.8	1	2400	1.5	—	5914	1.86	0.20	0.25	0.83	2.29	2.20	1.40	32.29	29.09	26.15
237614CR	57BYGH801	6	Unipolar	3.3	1.8	2.2	1500	2.2	—	5608	1.86	0.20	0.25	0.83	2.24	2.01	1.32	35.19	31.69	28.49
237534CR	42BYGH102	5	Unipolar	3.6	1.8	3	1200	3.2	220	3000	1.22	0.10	0.20	0.95	1.67	1.57	0.50	17.95	16.15	14.55
237551CR	57BYG008	4	Unipolar	4	1.8	3.1	1300	4.4	—	4996	1.86	0.20	0.25	0.83	2.29	2.01	1.30	29.95	26.95	24.25
237593CR	85BYGH450	6	Unipolar	4.4	1.8	2.2	2000	—	—	21414	2.76	0.26	0.51	1.38	3.35	2.95	4.90	161.95	145.75	131.19
237622CR	57BYGH802	6	Unipolar	4.8	1.8	3.2	1500	2.9	—	8157	1.86	0.20	0.25	0.83	2.24	2.20	1.54	37.69	33.95	30.55
237606CR	57BYGH001	6	Unipolar	5	1.8	5	1000	—	—	3976	1.86	0.20	0.25	0.83	2.24	1.61	1.10	32.49	29.25	26.35
237825CR	25BY4801	7	Unipolar	5	7.5	10	500	—	45	110	1.38	0.14	0.08	0.35	0.98	0.56	0.07	6.95	6.25	5.65
237673CR	35BY48B06	1	Unipolar	5	7.5	10	500	65	65	250	1.65	0.13	0.08	0.45	1.38	0.59	0.15	6.49	5.85	5.25
237770CR	20BY20H01	7	Unipolar	5	18	10	500	—	18	75	0.98	0.09	0.06	0.34	0.79	0.71	0.05	5.59	5.09	4.55
223870CR	57BYG070	4	Unipolar	5.4	1.8	3.6	1500	6	977	8974	2.65	0.20	0.25	0.80	2.20	2.00	2.00	49.95	42.46	31.84
237631CR	57BYGH803	6	Unipolar	6.3	1.8	4.2	1500	—	—	14276	1.86	0.20	0.25	0.83	2.24	2.99	2.43	64.59	58.15	52.35
172558CR	42BYG014	2	Unipolar	8.5	1.8	19	450	13	150	1300	1.22	0.50	0.20	0.87	1.67	1.34	0.50	12.95	11.66	10.49
237711CR	42BY48H06	8	Unipolar	9	7.5	20	450	18.5	130	800	1.95	0.14	0.12	0.39	1.65	0.87	0.30	7.89	7.09	6.39
237788CR	25BY2402	7	Unipolar	9	15	50	180	14	48	100	1.26	0.13	0.08	0.35	0.98	0.59	0.08	6.95	6.25	5.65
237649CR	25BY2403	7	Unipolar	9	15	20	450	4.5	48	130	1.38	0.14	0.08	0.33	0.98	0.56	0.07	4.69	4.25	3.79
172646CR	42BYG205	4	Unipolar	9.6	1.8	75	480	15	220	2300	1.73	0.10	0.20	0.90	1.70	1.40	0.50	17.95	15.26	11.44
224021CR	42BYG016	2	Unipolar	12	1.8	75	160	40	150	900	1.73	0.10	0.20	0.70	1.70	1.30	0.50	16.95	15.25	13.75
155432CR	42BYG228	2	Unipolar	12	1.8	30	400	23	220	2000	1.73	0.10	0.20	0.90	1.70	1.50	0.50	17.95	16.29	14.59
237542CR	57BYG007	4	Unipolar	12	1.8	32	380	30	—	2957	1.86	0.20	0.25	0.83	2.29	1.61	1.00	25.95	23.35	20.99
238537CR	42BYGH404	5	Unipolar	12	1.8	30	400	25	250	3200	1.22	0.10	0.20	0.95	1.67	1.89	0.60	19.95	17.95	16.15
162026CR	57BYG084	4	Unipolar	12	1.8	20	600	22	725	6000	2.65	0.20	0.25	1.00	2.20	2.00	1.30	26.95	24.29	21.85
237972CR	28BYJ01A1	7	Unipolar	12	5.625	300	40	—	300	552	1.38	0.17	0.20	0.33	1.10	0.75	0.09	4.19	3.79	3.55
237981CR	28BYJ01C	7	Unipolar	12	5.625	300	40	—	350	552	1.38	0.14	0.12	0.20	1.10	0.78	0.10	4.19	3.79	3.55
237753CR	28BYJ012A	7	Unipolar	12	5.625	200	60	—	350	736	1.38	0.16	0.12	0.24	1.10	0.75	0.08	3.59	3.25	3.10
237745CR	28BYJ01A	7	Unipolar	12	5.625	200	60	—	350	736	1.38	0.16	0.12	0.24	1.10	0.75	0.10	3.59	3.25	3.10
237833CR	25BY4803	7	Unipolar	12	7.5	50	240	16	45	110	1.34	0.09	0.08	0.27	0.98	0.59	0.07	6.95	6.25	5.65
237681CR	35BY48B069	1	Unipolar	12	7.5	50	270	28	65	300	1.65	0.13	0.08	0.26	1.42	0.85	0.15	6.49	5.85	5.25
237892CR	42BY48B03	8	Unipolar	12	7.5	57	210	18	105	300	2.28	0.08	0.12	0.30	1.65	0.58	0.21	10.45	9.39	8.45
238158CR	35BY48BH10	1	Unipolar	12	7.5	42	286	25	90	400	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	6.19	5.59
237930CR	42BY48B14	8	Unipolar	12	7.5	50	240	—	145	450	1.95	0.14	0.12	0.39	1.65	0.59	0.22	8.95	8.09	7.25
213321CR	35BY48-27	1	Unipolar	12	7.5	15	800	68	90	460	1.96	0.13	0.08	0.25	1.38	0.83	0.20	8.95	7.61	5.71
238131CR	35BY48BH05	1	Unipolar	12	7.5	15	800	10	90	460	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	6.19	5.59
237884CR	42BY48B02	8	Unipolar	12	7.5	40	300	28	130	500	N/A	N/A	0.12	0.30	1.65	0.57	0.21	10.45	9.39	8.45
238043CR	30BYJ05-PH	7	Unipolar	12	7.5	300	40	—	350	552	1.42	0.17	0.20	0.30	1.18	0.69	0.10	4.79	4.29	3.89
237761CR	30BYJ011	7	Unipolar	12	7.5	300	40	—	350	644	1.38	0.18	0.12	0.20	1.18	0.69	0.10	4.35	3.89	3.51

\* 155459CR: Dual shaft



## GBM Bipolar and Unipolar Stepper Motors (Continued)

Part No.	Product No.	Fig. (see pg. 103)	Drive System	Voltage (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Weight (lbs.)	Pricing		
																		1	10	50
238019CR	30BYJ01C1	7	Unipolar	12	7.5	300	40	—	350	644	1.54	0.17	0.12	0.20	1.18	0.68	0.10	\$4.79	\$4.29	\$3.89
238086CR	35BYJ03	7	Unipolar	12	7.5	400	40	—	450	828	1.65	0.16	0.20	0.33	1.42	0.67	0.12	4.95	4.45	3.99
238035CR	30BYJ03C	7	Unipolar	12	7.5	160	75	—	350	920	1.54	0.17	0.12	0.44	1.42	0.69	0.11	4.79	4.29	3.89
238060CR	35BYJ02	7	Unipolar	12	7.5	200	60	—	400	1104	1.65	0.16	0.20	0.33	1.42	0.67	0.13	4.95	4.45	3.99
238078CR	35BYJ02A	7	Unipolar	12	7.5	200	60	—	400	1104	1.85	0.16	0.20	0.33	1.38	0.69	0.13	4.95	4.45	3.99
238051CR	35BYJ01	7	Unipolar	12	7.5	130	92	—	350	1472	1.65	0.16	0.20	0.33	1.42	0.69	0.12	4.95	4.45	3.99
173180CR	30BYJ02AH*	7	Unipolar	12	7.5	200	60	49.5	400	736	1.42	0.14	0.19	0.36	1.18	0.68	0.10	11.49	9.77	7.32
237657CR	25BY2406	7	Unipolar	12	15	30	400	7.5	48	120	1.26	0.13	0.08	0.35	0.98	0.59	0.07	4.69	4.25	3.79
237956CR	42BY48H05	8	Unipolar	14	7.5	70	200	—	130	450	1.93	0.14	0.12	0.39	1.65	0.87	0.27	8.95	8.09	7.25
237438CR	35BYG007	5	Unipolar	15	1.8	28	400	—	12	70	1.02	0.10	0.20	0.83	1.38	1.10	0.37	16.95	15.25	13.75
237702CR	35BY48BH02	1	Unipolar	16.2	7.5	60	270	50	90	450	1.65	0.13	0.08	0.33	1.38	0.59	0.20	6.49	5.85	5.25
237665CR	25BY2407	7	Unipolar	16.2	15	85	190	19	48	100	1.26	0.16	0.08	0.49	0.98	0.56	0.10	4.69	4.25	3.79
237796CR	25BY2408	7	Unipolar	16.2	15	60	270	16	48	120	1.26	0.17	0.08	0.55	0.98	0.56	0.10	6.95	6.25	5.65
237841CR	25BY4806	7	Unipolar	20	7.5	50	400	16	45	155	1.26	0.13	0.08	0.49	0.98	0.56	0.10	6.95	6.25	5.65
237850CR	25BY4807	7	Unipolar	20	7.5	50	400	16	45	155	1.38	0.14	0.08	0.22	0.98	0.87	0.10	6.95	6.25	5.65
237868CR	25BY4808	7	Unipolar	20	7.5	50	400	16	45	155	1.38	0.14	0.08	0.22	0.98	0.87	0.10	6.95	6.25	5.65
237876CR	25BY4809	7	Unipolar	20	7.5	50	400	16	45	155	1.42	0.35	0.08	0.22	0.98	0.87	0.10	6.95	6.25	5.65
238115CR	35BY48B08	1	Unipolar	24	7.5	75	320	38	65	270	1.65	0.13	0.08	0.35	1.38	0.59	0.15	6.89	6.19	5.59
238107CR	35BY48B07	1	Unipolar	24	7.5	11	240	70	65	330	1.65	0.13	0.08	0.26	1.38	0.59	0.15	6.89	6.19	5.59
238140CR	35BY48BH07	1	Unipolar	24	7.5	110	240	70	90	350	1.65	0.13	0.08	0.26	1.38	0.85	0.20	6.89	6.19	5.59
237690CR	35BY48BH01	1	Unipolar	24	7.5	165	145	85	90	400	1.65	0.13	0.08	0.33	1.38	0.59	0.19	6.49	5.85	5.25
237921CR	42BY48B08	8	Unipolar	24	7.5	75	320	33	145	600	1.95	0.14	0.12	0.39	1.65	0.59	0.20	8.95	8.09	7.25
237905CR	42BY48B04	8	Unipolar	24	7.5	110	220	53	145	630	1.95	0.14	0.12	0.45	1.65	0.59	0.20	8.95	8.09	7.25
237913CR	42BY48B04M	8	Unipolar	24	7.5	120	200	57	145	630	1.95	0.09	0.12	0.45	1.65	0.59	0.22	8.95	8.09	7.25
237948CR	42BY48H02	8	Unipolar	24	7.5	48	500	—	130	630	1.95	0.14	0.12	0.39	1.65	0.87	0.30	8.95	8.09	7.25
237729CR	42BY48H07	8	Unipolar	24	7.5	85	280	78	130	780	1.95	0.14	0.12	0.39	1.65	0.87	0.27	7.89	7.09	6.39
237809CR	25BY2409	7	Unipolar	24	15	118	200	22	48	100	1.37	0.13	0.08	0.37	0.98	0.59	0.10	7.19	6.45	5.79
238123CR	35BY48BH03	1	Unipolar	28.8	7.5	115	278	85	90	450	1.65	0.13	0.08	0.26	1.38	0.85	0.19	6.89	6.19	5.59
237585CR	110BYG450C	4	Unipolar	80-200	0.9/1.8	0.18	6000	2	3060	45,900	5.0	0.33	0.63	2.13	4.33	5.10	8.40	179.95	161.95	145.75

\* 173180CR: Gear ratio 85.25:1

### Special Offers at Great Savings – 90-Day Warranty

## Bipolar and Unipolar Stepper Motors

- Excellent for precision control
- Can be operated in forward/reverse mode

New Lower Prices



Fig. 1

Quantity  
SAVE



Fig. 2



Fig. 3



Fig. 4

Part No.	Mfr. Cross Ref. No.	Fig.	Drive System	Volt. (VDC)	Step Angle	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing		
																	1	10	50
117954CR	LB82773-M1	1	Bipolar	5	7.5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	\$4.29	\$3.86	\$3.09
163395CR	5017-935 <sup>1</sup>	2	Bipolar	8.4	0.9	30	280	25	36	791	1.73	0.15	0.155	0.29	1.64	1.20	4.95	4.21	3.16
163408CR	4017-806 <sup>1</sup>	2	Bipolar	9.2	1.8	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.49	2.15	1.65
105881CR	SM4203 <sup>2</sup>	3	Bipolar	12	3.6	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.31	6.49	5.85	5.29
171601CR	PF35T48L4 <sup>3</sup>	1	Unipolar	7	3.6	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	4.99	4.24	3.18
210391CR	STP42N196S	4	Unipolar	24	3.75	110	436	60	60	600	1.95	0.13	0.118	0.42	1.65	0.54	\$4.95	3.95	3.36
210382CR	5620	1	Unipolar	24	7.5	100	436	60	40	380	1.67	0.13	0.078	0.40	1.38	0.58	\$2.99	1.99	1.81

<sup>1</sup> 163395CR/163408CR: Dual shaft <sup>2</sup> 105881CR: P/N 25216CR (IC, MC3479P, pg 26) bi-phase stepper motor driver can be used to operate; Use P/N 161998CR for shaft coupler, see pg 230

<sup>3</sup> 171601CR: Dual shaft w/ 10 tooth gear

## Steps Aside, You Can Save!

Designers today are forced to face many obstacles that didn't exist 10 – 20 years ago. Power-saving stand-by and sleep modes were necessary for flight equipment, but not nearly as common in traditional embedded systems.

Motors are now more efficient and produce significantly more torque/power per Watt consumed. But we still must balance power supply limitations with torque and precision requirements.

While not always considered as elegant as direct drive, gear-reduced power trains are

often quite advantageous. Positioning accuracy can be improved to finer increments by simply changing the gear ratio. Torque will also improve based on the gear ratio. And since a smaller, less powerful motor can be used, power requirements are also reduced. You'll use less expensive motors and power supplies, plus you'll reduce heat dissipation.

**Practical Practices**  
Money Saving Tips for the Engineer



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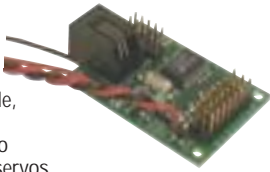
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## Scott Edwards Electronics, Inc.

### Serial Servo Controller Module

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553CR, pg 75) or modular adapter from DB9 to RJ11 (P/N 114737CR, pg 75)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty



Part No.	Description	1	10
151001CR	Mini SSC II	\$43.95	\$41.79

## OPONTECH Servo Controller Board

- Controls 1 to 8 servos per board, 8-bit precision
- Interface to PC through RS-232 port @ 2400-19,200bps
- 5 channel, 8-bit A/D input port for reading 0 to 5V
- IR-receiver & transmitter feature
- Source/sink: 25mA per pin • 8k EEPROM
- Size: 1.7"L x 1.4"W (main board); 1.1"L x 0.9"W (infrared board)

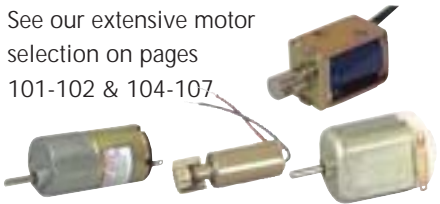


**SALE**

Includes: Manual, supplement & sample code software

Part No.	Description	1	10
153648CR	Servo controller board	\$77.75	\$70.67

See our extensive motor selection on pages 101-102 & 104-107



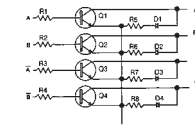
## rmv electronics

### 12-Bit Stepper Motor Control and Analog/Digital DAC Board

- High speed serial port interface up to 230.4kbps
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V inputs
- 24 digital I/O (TTL) and 11 analog channels with 12-bit resolution
- PWM, period measurement and stepper motor functions
- Free 32-bit DLL, OXC and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.



Driver Schematic



**SALE**

**Requires:** External driver circuit parts kit (P/N 208573CR, below) – consisting of 5 ea. 1k $\Omega$  1/4W resistors, 5 ea. 330 $\Omega$  1/4W resistors, 5 ea. MJE 3055T transistors, and 5 ea. 1N4003 diodes

Part No.	Description	1	10
109911CR	Stepper motor control board	\$104.75	\$94.29
208573CR	Unipolar circuit parts kit	3.49	3.15

### 32-Bit Stepper Motor Controller

#### One Axis

- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H • Weight: 0.7 lbs.

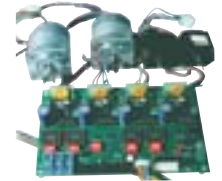


Part No.	Description	1	10
153621CR	32-bit controller	\$158.95	\$150.99

## rmv electronics

### Multi-Stepper Motor Control Board

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High-speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 12-bit resolution
- 24-bit position register; can be read while motor is moving
- Linear acceleration/deceleration capability up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current-mode coil driver up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.



Shown w/ motors – not included

Part No.	Description	1	10
168727CR	Stepper motor control board	\$399.95	\$379.95

### Electric Motors and Control Techniques

**TAB Publishing** Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

- Size: 7.3" x 9.2" • Weight: 1.1 lbs.



Part No.	Description	Price
137162CR	Electric Motors & Control	\$24.95

## KAE

### Industrial Motion Controllers for Brush, Brushless and Stepper Motors

All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. For RS-232 to RS-485 adapter see P/N 184971CR (below).



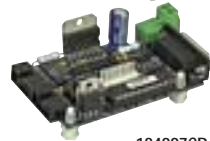
184989CR



185009CR



184971CR



184997CR



184962CR



184954CR

#### 184989CR: PIC-SERVO motor control board

- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps

#### 185009CR: PIC-SERVO 3PH motor control board for brush or brushless motors

- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989CR above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset

#### 184971CR: Z232-485 serial port adapter

- Lets you operate the controllers above from any standard RS-232 port

Part No.	Description	Size (L" x W" x H")	1	10
184989CR	PIC-SERVO	3.1 x 2.1 x 0.9	\$179.95	\$161.95
185009CR	PIC-SERVO 3PH	3.1 x 3.1 x 1.0	239.95	215.95
184971CR	Z232-485	3.1 x 2.1 x 0.5	59.95	53.95

#### 184997CR: PIC-STEP motor control board

- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

#### 184962CR: PIC-I/O multifunction I/O control board

- 12 I/O bits software configurable as inputs or outputs
- One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

#### 184954CR: Simple sequencer stand-alone controller

- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board (P/N 184971CR, left)

Part No.	Description	Size (L" x W" x H")	1	10
184997CR	PIC-STEP	3.1 x 2.1 x 0.9	\$159.95	\$143.95
184962CR	PIC-I/O	3.1 x 2.1 x 0.6	99.95	89.95
184954CR	Simple sequencer	2.1 x 1.0 x 0.4	59.95	53.95

## 1.5-112VDC Motors

Jameco has a broad selection of DC Motors available for immediate delivery! In fact, we're the only place in the country where you can buy them off-the-shelf. And because of our broad selection, major custom-design motor manufacturers send their customers to us! Be sure to check out all the new products below.

**Typical applications:**

- RC cars and airplanes
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- Vacuum cleaners
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- Blow dryers
- Tire pumps
- Paper shredders
- Cordless power tools

## NICHIBO

Part Number	Product No.	Fig.	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency			Efficiency	Terminal Type	Shaft "Dia."	Shaft "Length"	Size (D" x L")	Pricing		
					Current (Amps)	Speed (RPM)	Torque (g-cm)						1	10	100
231917CR	FE-260-2670	5	1.5	1.5-3	0.66	3700	10.5	42.9	Solder	0.078	0.314	0.937 x 1.063	\$9.99	\$8.89	\$8.85
231861CR	UE-260-2850	6	1.5	1.5-3	1.15	4260	13.4	34.9	Solder	0.078	0.314	0.944 x 1.063	1.25	1.09	.99
231853CR	UE-260-2838	6	1.5	1.5-2.4	1.57	5600	15.5	39.0	Solder	0.078	0.314	0.944 x 1.063	1.25	1.09	.99
232135CR	FF-050S-13130	3	2	2-4	0.11	3000	3	42.0	Solder	0.059	0.433	0.610 x 1.059	2.49	2.25	1.99
231909CR	FE-260-18130	5	3	1.5-4.5	0.36	4780	10.3	49.6	Solder	0.078	0.314	0.937 x 1.063	.99	.89	.85
231888CR	UE-260-20120	6	3	1.5-4.5	0.45	4780	12.9	49.8	Solder	0.078	0.314	0.944 x 1.063	1.25	1.09	.99
231790CR	PC-130F-18120	7	3	3-4.5	0.51	6260	8.1	35.6	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231870CR	UE-260-2290	6	3	1.5-4.5	0.62	6400	12.9	47.1	Solder	0.078	0.314	0.944 x 1.063	1.25	1.09	.99
231925CR	FE-260-2295	5	3	1.5-4.5	0.63	6850	14	53.9	Solder	0.078	0.314	0.937 x 1.063	.99	.89	.85
232071CR	FC-280-2485	1	4.5	4.5-7.2	0.88	7820	26	52.7	Solder	0.078	0.472	0.944 x 1.200	1.75	1.59	1.45
232080CR	FC-280-2865	1	4.5	4.5-6	1.38	9970	30.4	50.1	Solder	0.078	0.472	0.944 x 1.200	1.75	1.59	1.45
231765CR	PC-130SF-15160	7	4.8	3-9	0.42	4960	16.6	42.6	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231984CR	UE-260-14275	6	6	6-12	0.21	4150	13.1	45.8	Solder	0.078	0.314	0.944 x 1.063	1.49	1.35	1.19
231829CR	PC-280-16210	8	6	3-12	0.28	4260	18	47.6	Solder	0.078	0.433	0.944 x 1.200	2.45	2.19	1.99
231781CR	PC-130F-12240	7	6	3-9	0.25	6800	7	33.4	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231992CR	UC-260-18160	6	6	3-9	0.57	7460	22.1	49.9	Solder	0.078	0.314	0.944 x 1.063	1.49	1.35	1.19
231811CR	PC-280-20125	8	6	3-9	0.57	7560	21.1	48.6	Solder	0.078	0.433	0.944 x 1.200	2.45	2.19	1.99
232063CR	FC-280-20120	1	6	4.5-9	0.60	7800	24.1	53.5	Solder	0.078	0.472	0.944 x 1.200	1.75	1.59	1.45
232143CR	FF-050S-11170	3	7	1.5-9	0.17	8500	7	51.3	Solder	0.059	0.433	0.610 x 1.059	2.49	2.25	1.99
232151CR	FF-050S-09250	3	8	5-11.5	0.11	6300	7	51.4	Solder	0.059	0.433	0.610 x 1.059	2.49	2.25	1.99
231802CR	PC-130F-10370	7	9	6-12	0.15	6410	8.5	43.9	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231933CR	UC-280S-10450	9	12	12-24	0.11	2850	21.3	46.5	Solder	0.078	0.433	0.944 x 1.200	2.55	2.29	2.09
232012CR	MD5-12160	10	12	12-24	0.30	4000	34.3	39.1	Solder	0.091	0.622	1.082 x 1.279	2.25	1.99	1.79
231968CR	UC-260-09530	6	12	12-24	0.12	4030	12.5	36.7	Solder	0.078	0.314	0.944 x 1.063	1.49	1.35	1.19
231845CR	PC-280-10420	8	12	6-24	0.13	4270	14.5	43.6	Solder	0.078	0.433	0.944 x 1.200	2.45	2.19	1.99
231731CR	PC-130SF-09480	7	12	6-24	0.11	4800	12.3	49.6	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231749CR	PC-130SF-09400	7	12	6-24	0.15	5130	14.3	42.5	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
231896CR	FE-260-08450	5	12	6-12	0.11	5560	10.3	46.6	Solder	0.078	0.314	0.937 x 1.063	.99	.89	.85
231773CR	PC-130F-09490	7	12	6-18	0.51	6260	8.1	39.1	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
232160CR	FF-050S-08220	3	12	9-18	0.09	6270	5	31.5	Solder	0.059	0.433	0.610 x 1.059	2.49	2.25	1.99
231757CR	PC-130SF-10315	7	12	6-18	0.25	6350	20	44.6	Solder	0.078	0.377	0.803 x 0.984	2.09	1.89	1.69
232055CR	FC-280-12280	1	12	6-12	0.26	6840	21.4	48.6	Solder	0.078	0.472	0.944 x 1.200	1.75	1.59	1.45
231976CR	UC-260-12335	6	12	6-12	0.24	7050	19.5	50.0	Solder	0.078	0.314	0.944 x 1.063	1.49	1.35	1.19
231837CR	PC-280-15265	8	12	6-12	0.30	7230	25	52.5	Solder	0.078	0.433	0.944 x 1.200	2.45	2.19	1.99
232004CR	UC-280S-19160	9	12	6-12	0.57	9000	46.6	63.4	Solder	0.078	0.433	0.944 x 1.200	2.55	2.29	2.09
232021CR	MD5-1885	10	12	6-18	0.74	9820	53.5	60.7	Solder	0.091	0.622	1.082 x 1.279	2.25	1.99	1.79
231950CR	UC-280S-20145	9	12	6-12	0.75	10000	55	64.0	Solder	0.078	0.433	0.944 x 1.200	2.55	2.29	2.09
232039CR	MD5-2070	10	12	6-12	1.20	12150	62.2	54.1	Solder	0.091	0.622	1.082 x 1.279	2.25	1.99	1.79
232127CR	MD5-2554AS-AA	2	12	6-12	1.70	17000	72.9	62.4	Quick Connect	0.091	0.512	1.083 x 1.279	3.59	3.19	2.89
232119CR	MD5-2450AS-AA	2	12	6-12	2.00	17200	77.5	55.9	Quick Connect	0.091	0.512	1.083 x 1.279	3.59	3.19	2.89
232047CR	MD5-2445	10	12	6-12	2.05	19850	79.7	66.0	Solder	0.091	0.622	1.082 x 1.279	2.25	1.99	1.79
231941CR	UC-280S-12285	9	24	12-24	0.39	10300	54.4	62.4	Solder	0.078	0.433	0.944 x 1.200	2.55	2.29	2.09
232098CR	MD5-15120AS-AA	2	24	12-24	0.70	15100	66.7	61.5	Quick Connect	0.091	0.512	1.083 x 1.279	3.59	3.19	2.89
232101CR	MD5-1980AS-AA	2	24	12-24	1.43	22600	88.5	60.9	Solder	0.091	0.512	1.083 x 1.279	3.59	3.19	2.89

## Mabuchi-Type

238465CR	RF-310TA-11400 (CCW)	11	2.5	1-6	0.06	2190	3.3	—	Solder	0.078	0.369	0.962 x 0.712	\$5.35	\$4.55	\$3.41
238457CR	RF-300PA-11400 (CW)	12	3	1-3	0.07	2400	4.3	56.4	Wires	0.078	0.415	0.960 x 0.504	4.35	3.89	3.49
238511CR	RF-500TB-12560	13	6	1.5-12	0.08	2180	11.6	50.6	Solder	0.078	0.385	1.259 x 0.767	4.49	4.09	3.65
238431CR	EG-530AD-6B (CCW)	14	6	4.2-7.5	0.13	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	4.49	4.09	3.65
238422CR	EG-530AD-6F (CW)	14	6	4.2-7.5	0.13	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	4.49	4.09	3.65
238449CR	EG-530AD-9B (CCW)	14	9	6-11	0.09	2400	8	—	Solder	0.078	0.307	1.377 x 0.984	4.49	4.09	3.65
238490CR	EG-530YD-9B (CCW)	14	9	6.3-11.7	.13/.14	2000/4000	10	—	Solder	0.078	0.307	1.377 x 0.984	6.29	5.65	5.09
238502CR	EG-530KD-2B (CCW)	14	12	8.4-15.6	0.08	1600	10	—	Solder	0.078	0.307	1.377 x 0.984	4.95	4.45	3.99
238473CR	RF-370CA-15370	15	12	3-12	0.07	1970	16	61.4	Solder	0.078	0.346	0.960 x 1.213	5.55	4.95	4.49
238414CR	EG-530AD-2B (CW)	14	12	8.4-15	0.07	2400	60	—	Solder	0.078	0.307	1.377 x 0.953	4.49	4.09	3.65
238406CR	EG-530AD-2F (CCW)	14	12	8.4-15	0.07	2400	60	—	Solder	0.078	0.307	1.377 x 0.953	4.49	4.09	3.65
238481CR	EG-530YD-2B (CCW)	14	12	8.4-15	.13/.14	2000/4000	10	—	Solder	0.078	0.322	1.303 x 0.997	6.29	6.29	6.29

## GBM

237391CR	29SYT003	4	13.5	13.5	13	18000	509	—	Quick Connect	0.125	1.003	1.141 x 2.283	\$5.95	\$5.35	\$4.85
237382CR	29SYT002	4	24	24	0.93	2680	178	—	Wire	0.100	0.334	0.787 x 1.89	5.95	5.35	4.85
237403CR	40SYT002	16	26	26	1.5	300	815	—	Quick Connect	0.196	1.021	1.57 x 3.85	25.95	23.35	20.99
237374CR	29SYT001	4	112	112	0.93	2680	178	—	Wire	0.100	0.334	1.15 x 1.89	5.95	5.35	4.85



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

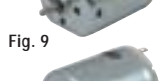


Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14

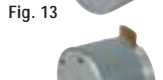


Fig. 15



Fig. 16



**MITSUMI**

**NICHIBO MOTOR**

**Nm**

## 2.5VDC-24VDC Motors

**star motor**

**JOHNSON ELECTRIC**



Part Number	Product Number	Manufacturer	Nominal Voltage (VDC)	Voltage Range (VDC)	@ Maximum Efficiency			Efficiency	Terminal Type	Shaft "Dia.	Shaft "Length	Size (D" x L")	Quantity <b>SAVE</b> Pricing		
					Current (Amps)	Speed (RPM)	Torque (g-cm)						1	10	100
295849CR	RF-310T-11400	Mabuchi Motor	2.5	1-6	0.060	2190	3.3	—	0.06"/solder	0.08	0.89	0.96 x 0.71	\$1.49	\$1.34	\$1.21
154915CR	ST-130-12240 <sup>1</sup>	Star Motor	3	1.5-3	0.170	3588	7.4	55	0.09"/solder	0.08	0.37	0.79 x 1.13	1.09	.93	.69
154923CR	ST-130-22770 <sup>1</sup>	Star Motor	3	1.5-3	1.150	12500	10.3	40	0.09"/solder	0.08	0.37	0.79 x 1.13	.99	.84	.63
211246CR	RC-260RA-2670	Mabuchi Motor	4.5	3-4.5	1.430	15290	21.8	53	0.11"/solder	0.08	0.28	0.93 x 1.06	1.95	1.65	1.25
267231CR	FRF-510-12620	Telco	6	3-12	0.030	2700	10.0	—	Wire w/ conn.	0.08	0.31	1.25 x 0.86	.99	.89	.79
177498CR	RC280RA-2485	Mabuchi Motor	7.2	3-14	1.180	14260	33.3	57	11"/solder	0.08	0.43	0.95 x 1.20	1.75	1.55	1.39
174692CR	21226-384221	Johnson Electric	12	9-14	0.015	3000	—	—	0.11"/solder	0.08	0.69	0.97 x 1.19	2.49	2.15	1.59
181112CR	M25N-2	Mitsumi	12	5-15	0.018	3000	18.0	—	11"/solder	0.08	0.26	0.97 x 1.30	1.99	1.69	1.44
206949CR	QJT360S14280	Nichibo	12	9-30	0.350	4930	44.5	52	0.11"/solder	0.09	0.45	1.09 x 1.30	1.69	1.45	1.09
153656CR	RS550PF	Mabuchi Motor <sup>2</sup>	12	6-15	1.400	6500	44.1	—	0.15"/solder	0.13	0.66	1.45 x 2.25	3.29	2.99	2.69
267291CR	SUN-555A-LMRK	Telco	24	—	0.150	4100	84	—	Wire w/ conn.	0.13	0.40	1.45 x 2.25	2.99	2.54	1.91

<sup>1</sup> 154915CR/154923CR: Use bushing P/N 162392CR, pg 230

<sup>2</sup> Manufacturer may vary



Quantity **SAVE**

## 12VDC and 24VDC Reversible Gear Head Motors

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC



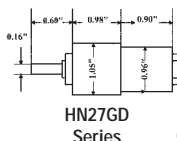
167038CR



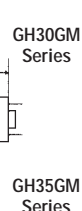
159417CR



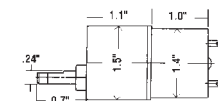
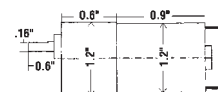
155011CR



HN27GD Series



GH30GM Series



### HN27GD Series

Part Number	Product Number	Rated Voltage (VDC)	Operating Range (VDC)	@ Maximum Efficiency			Gear Ratio	Gear Case Size Dia. x Length (in.)	Motor Size Dia. x Length (in.)	Shaft Size Dia. x Length (in.)	Pricing		
				Current (mA)	Speed (RPM)	Torque (g-cm)					1	10	50
167038CR	GH12-0953Y	12	4.5 – 24	90	9	1200	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	\$16.49	\$14.85	\$13.39
167046CR	GH12-1828Y	12	4.5 – 24	195	31	1300	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	21.95	19.79	17.79

### GH30GM Series

170641CR	GH12-1828Y-10	12	6.0 – 24	105	8	3500	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	\$23.95	\$21.59	\$19.49
153437CR	GH12-1045Y	12	3.0 – 12	90	7	800	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	18.95	17.09	15.35
159417CR	GH12-1921Y	12	4.5 – 12	200	35	2000	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	21.95	19.79	17.79
162190CR	GH12-1324Y225	12	4.5 – 12	145	176	300	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	16.95	15.25	13.75

### GH35GM Series

155011CR	GH12-1926	12	4.5 – 12	250	2	6000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	\$21.95	\$19.79	\$17.79
155820CR	GH12-1830Y-P	12	4.5 – 12	220	4.5	4500	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79	17.79
155838CR	GH12-1641T-L	12	3.0 – 12	250	15	3000	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59	19.45
152910CR	GH12-1926Y	12	4.5 – 12	172	35	2370	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	18.66	13.99
151440CR	GH12-1632TI	12	4.5 – 12	275	57	2200	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55	16.69
155854CR	GH12-1641T-F	12	3.0 – 12	250	71	1000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79	17.79
155862CR	GH12-1926Y-F	12	4.5 – 12	300	70	1000	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	21.95	19.79	17.79
161373CR	GH12-1345T	12	4.5 – 12	185	116	650	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	23.95	20.36	15.27
161381CR	GH12-1634T	12	4.5 – 12	293	145	850	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79
164785CR	GH12-1640Y	12	4.5 – 24	120	220	180	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	23.95	21.59	19.45
176049CR	GH12-1640Y00	24	12 – 24	340	1.8	6000	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	21.95	18.66	15.52
176031CR	GH24-1640Y06	24	12 – 24	340	50	2000	90:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79
176022CR	GH24-1640Y19	24	12 – 24	340	148	1000	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79

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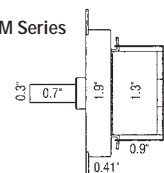


## 6VDC and 12VDC Reversible Gear Head Motors

### 32GM Series

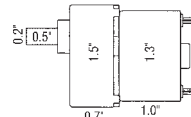
Part Number	Product Number	Rated Voltage (VDC)	@ Maximum Efficiency			Gear Ratio	Gear Case Size Dia. x Height (in.)	Motor Size Dia. x Height (in.)	Shaft Size Dia. x Length (in.)	Pricing		
			Current (mA)	Speed (RPM)	Torque (g-cm)					1	10	50
253403CR	32-009	6	64	2.7	2500	450:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	\$17.95	\$16.15	\$14.55
253391CR	32-008	6	60	3	2000	400:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253382CR	32-007	6	57	3.2	1800	377:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253374CR	32-006	6	51	4	1680	300:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253340CR	32-005	6	48	5	1600	240:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253323CR	32-004	6	44	6	1500	200:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253315CR	32-003	6	40	6.3	1350	190:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253307CR	32-002	6	38	8	1200	150:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55
253227CR	32-001	6	35	24	450	50:1	1.9 x 0.41	1.3 x 0.90	0.3 x 0.7	17.95	16.15	14.55

### 32GM Series



253227CR

### 38GM Series



253446CR

### 38GM Series

253534CR	38-010	12	97	24	7500	250:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	\$18.95	\$17.09	\$15.35
253526CR	38-009	12	93.5	36	5400	167:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253518CR	38-008	12	87.5	40	4800	150:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253500CR	38-007	12	82	60	3200	100:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253497CR	38-006	12	80	66	2100	90:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253489CR	38-005	12	76	110	1300	56:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253471CR	38-004	12	74	120	1100	50:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253462CR	38-003	12	68	180	800	33:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253454CR	38-002	12	65	200	700	30:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35
253446CR	38-001	12	61.8	600	350	10:1	1.5 x 0.7	1.3 x 1.0	0.2 x 0.5	18.95	17.09	15.35

## 1.3VDC and 3VDC Vibrating Motors

- Typical applications: cellular phones, pagers and toys

Quantity  
**SAVE**



Fig. 1

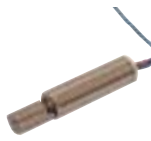


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

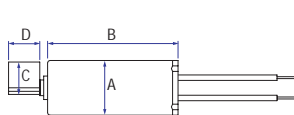


Fig. 3

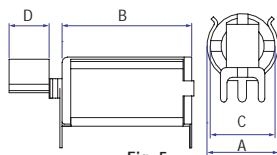


Fig. 5

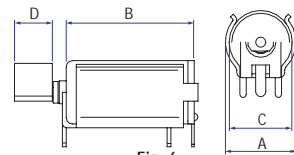


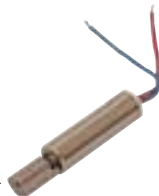
Fig. 6

Part No.	Mfr. Cross Ref. No.	Fig.	Operating Voltage (VDC @ mA)	Operating Range (VDC)	Rated RPM @ VDC	Lead Length (in.)	Motor Size (A x B) Dia." x L"	Shaft Size (C x D) Dia." x L"	Pricing		
									1	10	100
175062CR	OTL-7AL	1	1.3 @ 62	0.70 - 1.60	7000 @ 1.3	0.7	0.28 x 0.67	0.10 x 0.18	\$5.49	\$4.94	\$4.45
256356CR	72K642	3	1.3 @ 70	1.00 - 1.60	7500 @ 1.3	4.7	0.28 x 0.66	0.18 x 0.22	4.65	4.19	3.75
256372CR	72K631	3	1.3 @ 70	0.80 - 1.60	7500 @ 1.3	1.1	0.28 x 0.66	0.12 x 0.16	4.65	4.19	3.75
190078CR	6CD-1201WL-00	4*	1.3 @ 80	—	7500 @ 1.3	1.1	0.24 x 0.47	0.10 x 0.22	6.55	5.57	4.18
175396CR	OTL-4AL	2*	1.3 @ 65	0.70 - 1.60	8500 @ 1.3	0.8	0.16 x 0.55	0.15 x 0.23	6.49	5.85	5.19
256305CR	62K003	3	1.3 @ 80	0.85 - 1.60	8500 @ 1.3	1.0	0.23 x 0.39	0.10 x 0.10	3.29	2.99	2.69
256321CR	62K211	5	1.3 @ 80	0.80 - 1.60	8500 @ 1.3	PC Term	0.27 x 0.48	0.11 x 0.11	3.29	2.99	2.69
256268CR	52K019	6	1.3 @ 85	0.80 - 1.60	10000 @ 1.3	PC Term	0.20 x 0.40	0.10 x 0.07	5.29	4.79	4.29
256145CR	42K036	6	1.3 @ 80	0.85 - 1.60	11000 @ 1.3	PC Term	0.17 x 0.43	0.07 x 0.16	5.95	5.35	4.85
256049CR	42K041	3	1.3 @ 85	0.85 - 1.60	11000 @ 1.3	1.0	0.16 x 0.43	0.07 x 0.17	5.95	5.35	4.85
256241CR	52K011	3	1.3 @ 85	0.80 - 1.60	11000 @ 1.3	1.0	0.20 x 0.39	0.10 x 0.12	5.29	4.79	4.29
185228CR	FM31E	7	3.0 @ 45	2.50 - 3.80	4500 @ 3.0	Solder pads	0.55 x 0.13	—	3.85	3.27	2.45
256364CR	72K692	3	3.0 @ 60	2.40 - 3.00	6500 @ 3.0	4.7	0.28 x 0.66	0.18 x 0.22	4.65	4.19	3.75
256381CR	72K681	3	3.0 @ 60	2.40 - 3.60	7500 @ 3.0	1.1	0.28 x 0.66	0.12 x 0.16	4.65	4.19	3.75
256313CR	62K053	3	3.0 @ 75	1.60 - 3.60	8500 @ 3.0	1.0	0.23 x 0.39	0.10 x 0.10	3.29	2.99	2.69
256330CR	62K261	5	3.0 @ 75	2.40 - 3.00	8500 @ 3.0	PC Term	0.27 x 0.48	0.11 x 0.11	3.29	2.99	2.69
256250CR	52K061	3	3.0 @ 75	2.40 - 3.00	10000 @ 3.0	1.0	0.20 x 0.39	0.10 x 0.12	5.29	4.79	4.29
256276CR	52K069	6	3.0 @ 75	2.40 - 3.00	10000 @ 3.0	PC Term	0.20 x 0.40	0.10 x 0.07	5.29	4.79	4.29
256090CR	42K091	3	3.0 @ 80	2.40 - 3.60	11000 @ 3.0	1.0	0.16 x 0.43	0.07 x 0.17	5.95	5.35	4.85
256153CR	42K086	6	3.0 @ 70	1.30 - 3.60	12000 @ 3.0	PC Term	0.17 x 0.43	0.07 x 0.16	5.95	5.35	4.85

\*More details on page 107

## 1.3VDC 8,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8,500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L



Part No.	Description	1	10	100
175396CR	Vibrating motor .....	\$6.49	\$5.85	\$5.19

**Namiki**

## 1.3VDC 7,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers and toys
- Rated RPM: 7,500 @ 1.3VDC
- Clock-wise rotation
- 1.1" lead wires
- Operating voltage: 1.3VDC @ 80mA
- Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.

**Quantity  
SAVE**



Part No.	Description	1	10	100
190078CR	Vibrating motor .....	\$6.55	\$5.57	<b>\$4.18</b>

## 120VAC Gear Motor

6.0 RPM - 2.9 Watt

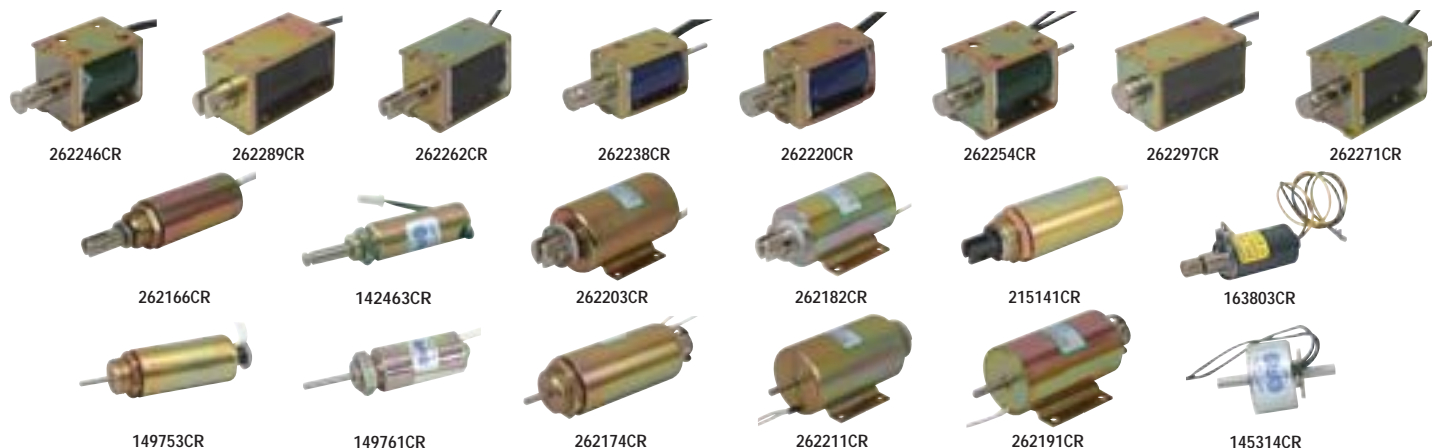
- Operating Voltage: 120VAC @ 60Hz
- Torque: >3.6 kg-cm
- Connector: 12" wires
- Screw down tabs for mounting (2.3" diagonal mounting hole space)
- Shaft diameter: 0.27" • Shaft length: 0.65"
- Overall size: 2.0" Dia. x 1.0" thick
- Typical applications: air conditioner turnleaf motor, microwave turnplate motor



Part No.	Mfr. Cross Ref. No.	1	10	100
213487CR	50TYZ .....	\$14.95	\$13.46	\$12.11

# Solenoids

## 12VDC and 24VDC Continuous Push, Pull and Push/Pull Solenoids

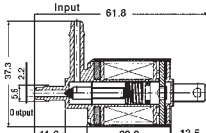


Part No.	Mfr. Cross Reference No.	Type	Voltage (VDC)	Coil Res. (±10%) (Ohms)	Power Consump. (W)	Holding Force (lbs. @ 20°C)	Stroke	Size L x Dia. (in.) <sup>†</sup>	Shaft Dia. (in.)	Wt. (lbs.)	Pricing		
											1	10	100
262246CR	SMO-0520L12STD	Open frame-pull	12	90	1.6	0.16	0.24	0.8 x 0.6 x 0.5	0.200	0.04	\$5.19	\$4.65	\$4.19
262289CR	SMO-1253L12AA	Open frame-pull	12	26	6.0	0.90	0.24	2.0 x 1.2 x 1.1	0.470	0.50	11.89	10.69	9.65
262262CR	SMO-0837L12STD	Open frame-pull	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.310	0.21	7.29	6.56	5.90
262238CR	SMO-0415S12AA	Open frame-push	12	180	0.8	0.01	0.12	0.6 x 0.4 x 0.3	0.040	0.01	5.95	5.35	4.79
262220CR	SMO-0415L12AA	Open frame-push	12	180	0.8	0.01	0.12	0.6 x 0.4 x 0.3	0.160	0.01	4.79	4.29	3.89
262254CR	SMO-0520S12STD	Open frame-push	12	90	1.6	0.16	0.24	0.8 x 0.6 x 0.5	0.06/0.20*	0.04	6.39	5.75	5.15
262297CR	SMO-1253S12AA	Open frame-push	12	26	6.0	0.90	0.24	2.0 x 1.2 x 1.1	0.10/0.47*	0.50	13.09	11.79	10.59
262271CR	SMO-0837S12STD	Open frame-push	12	36	4.0	1.10	0.24	1.5 x 1.0 x 0.8	0.08/0.31*	0.21	8.39	7.59	6.85
262166CR	SMT-1325L12STD	Tubular-pull	12	36	4.0	0.11	0.47	1.0 x 0.5	0.200	0.05	9.95	8.95	8.15
142463CR	SMT-1130L12A	Tubular-pull	12	36	4.0	0.63	0.40	1.6 x 0.4	0.150	0.04	6.95	6.26	5.63
262203CR	SMT-3864L24STD	Tubular-pull	24	34	17.0	1.32	1.18	2.5 x 1.5	0.620	1.10	29.95	26.95	24.29
262182CR	SMT-3257L24STD	Tubular-pull	24	44	13.0	3.30	0.70	2.3 x 1.3	0.500	0.65	19.59	17.69	15.89
215141CR	SMT-2251L24AA	Tubular-pull	24	60	10.0	4.00	1.00	3.0 x 1.0	0.440	0.40	<b>10.95</b>	<b>9.31</b>	<b>6.98</b>
163803CR	A420-067074-01	Tubular-push	12	43	3.4	0.75	0.17	2.0 x 0.6	0.156	0.10	9.95	7.65	<b>5.75</b>
149753CR	SMT-1325S12A	Tubular-push	12	36	4.0	0.75	0.47	1.9 x 0.5	0.063	0.05	<b>9.95</b>	<b>8.46</b>	<b>6.34</b>
149761CR	SMT-1632S12A	Tubular-push	12	21	7.0	1.50	0.24	2.5 x 0.6	0.098	0.10	10.95	9.86	8.87
262174CR	SMT-2551S24STD	Tubular-push	24	58	10.0	1.32	0.70	2.0 x 1.0	0.120	0.40	15.95	14.39	12.99
262211CR	SMT-3864S24STD	Tubular-push	24	34	17.0	1.32	1.18	2.5 x 1.5	0.160	1.10	31.39	28.19	25.39
262191CR	SMT-3257S24STD	Tubular-push	24	44	13.0	6.80	0.70	2.3 x 1.3	0.160	0.65	19.95	17.95	16.19
145314CR	SMT1913S12A	Tubular-push/pull	12	89	2.0	1.12	0.16	1.2 x 0.7	0.110	0.05	9.95	8.96	8.06

<sup>†</sup>Open frame type dimensions: L" x W" x H"; \*Dual shaft

## 12VDC Solenoid Valve

- Operating voltage: 12VDC
- Operational temperature: -29°C to 85°C
- Current: 350mA
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia • Weight: 0.1 lbs.



Part No.	Description	1	10	100
169834CR	Solenoid valve .....	\$6.95	\$6.25	\$5.59

See page 236 for our selection of Motor Kits.







## Miniature Toggle Switches

- Mounting hole diameter: 1/4"

Includes: Mounting hardware



Fig. 1



Fig. 2



Fig. 3

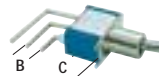


Fig. 4



Fig. 5



Fig. 6

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary	Dimensions L" x W" x D"	Lead Spacing			Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing				
						A"	B"	C"				1	10	100	250	1000
76523CR	JMT113	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	\$1.15	\$1.03	\$ .93	\$ .75	\$ .65
21936CR	JMT123	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.03	.93	.75	.65
21910CR	JMT121	3	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.35	1.25	1.09	.95	.85
22832CR	LFH123	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.15	1.05	.95	.85	.75
75854CR	SWM132	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16	1.04	.94	.69
75889CR	SWM129	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.99	1.85	1.55	1.09	.95
26331CR	MPC123	3	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6 @ 125 & 3 @ 250	PC straight	Round	1.39	1.25	1.12	.95	.78
26315CR	MPC121	3	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.19	.99	.79	.59
71597CR	SWM148	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5 @ 125 & 2 @ 250	PC right angle	Round	1.19	1.09	.91	.73	.55
75871CR	SWM145	5	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	6 @ 125 & 3 @ 250	PC right angle	Round	1.49	1.35	1.09	.86	.79
22841CR	LFH221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3 @ 125 & 1 @ 250	Solder lugs	Flat	1.45	1.35	1.19	1.09	.95
21979CR	JMT223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	1.49	1.29	1.15	.99	.59
22859CR	LFH223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Flat	1.29	1.19	1.05	.95	.85
75900CR	SWM133	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.85
21952CR	JMT221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.29	1.16	1.04	.89	.75
75951CR	SWM130	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6 @ 125 & 3 @ 250	Solder lugs	Round	1.49	1.35	1.25	.99	.89
26366CR	MPC223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.49	1.35	1.25	.99	.89
26358CR	MPC221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	PC straight	Round	1.29	1.16	1.04	.89	.75

## Special Limited Offers from Other Manufacturers

105814CR	SWA208	1	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5 @ 125 & 2 @ 250	Solder lugs	Round	\$1.59	\$1.45	\$1.29	\$1.15	\$ .89
202964CR	WI24	6	6	DPDT on-off-(on)	.50 x .50 x .46	.15	.15	.20	6 @ 125 & 3 @ 250	PC right angle	Round	.89	.80	.68	.54	.41



## Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

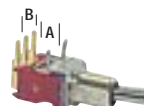


Fig. 1

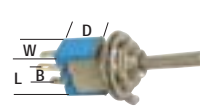


Fig. 2

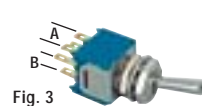


Fig. 3

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing			Contact Rating	Lead Type	Lever Type	Pricing				
						A"	B"	C"				1	10	100	250	1000
106067CR	SWP124	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	—	30mA @ 5VDC	PC right angle	Round	\$1.99	\$1.83	\$1.59	\$1.44	\$1.32
72160CR	SW1501	2	2	SPST on-off	.33 x .21 x .33	.10	—	—	1.5A @ 250VAC	Solder lugs	Round	1.29	1.24	1.14	.98	.79
75969CR	SWM136	2	3	SPDT on-on	.33 x .21 x .33	.10	—	—	3A @ 125VAC	Solder lugs	Round	1.55	1.44	1.21	.86	.63
72557CR	SW1502	2	3	SPDT on-off-on	.33 x .21 x .33	.10	—	—	1.5A @ 250VAC	Solder lugs	Round	1.35	1.25	1.05	.85	.60
138907CR	SW1503	3	6	DPDT on-off-on	.36 x .37 x .33	.17	.10	—	3A @ 120VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
75977CR	SWM137	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55



## Full-Size Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever
- Medium duty
- Keyed plate indicates switch position

Includes: Mounting hardware and on/off plate

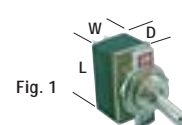
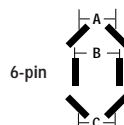
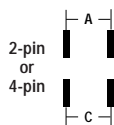


Fig. 1



Fig. 2

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing			Contact Rating (A @ VAC)	Lead Type	Lever Type	Pricing				
						A"	B"	C"				1	10	100	250	1000
76241CR	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	—	—	4 @ 125 & 2 @ 250	Solder lugs	Round	\$1.49	\$1.29	\$1.19	\$ .99	\$ .89
158060CR	JKN32	1	4	DPST on-off	1.00 x .56 x .52	.23	—	.23	4 @ 125 & 2 @ 250	Solder lugs	Round	1.15	1.05	.95	.85	.75
76260CR	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5 @ 125 & 3 @ 250	Solder lugs	Round	1.75	1.59	1.45	1.29	1.15
158078CR	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10 @ 125 & 6 @ 250	Screw lugs	Round	1.75	1.59	1.29	.99	.85
76232CR	SWM125	2	2	SPST on-off	1.00 x .53 x .51	—	—	—	6 @ 125 & 3 @ 250	6" lead wire	Round	1.75	1.59	1.45	1.29	1.15

## Special Limited Offers from Other Manufacturers

76259CR	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5 @ 125 & 3 @ 250	Solder lugs	Round	\$1.59	\$1.45	\$1.29	\$1.15	\$1.05
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Phone 1-800-831-4242

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Order Anytime 24x7x365

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## Awesome Prices in Slide Switches!

Jameco Part No.	Product No.	Jameco Price	Digi-Key Price	Mouser Price	Newark Price	Minimum Savings	Discount
204142CR	L102021ML04Q015	\$0.39	\$1.83	\$1.45	\$1.41	\$1.01	72.1%
202972CR	S065T	\$0.20	\$0.37	\$0.34	Not Offered	\$0.14	41.2%
203001CR	AS13	\$0.29	\$0.37	\$0.50	Not Offered	\$0.08	21.6%
275039CR	NTE6403	\$7.59	Not Offered	\$8.06	\$9.43	\$0.47	5.8%

These are single unit prices taken from each party's website on September 13, 2004, and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

JAMECO ValuePro

## Slide Switches

- Two mounting flanges
- Top actuation
- Nylon actuator
- Phenolic insulated



109170CR



202770CR

**SALE**



202981CR



203001CR



204142CR



161816CR



202972CR



202930CR

\* Prepackaged: order in increments of 10, 100 or 250

Part No.	Pins	Type	Description	Housing Material #	Dimensions			Lead Spacing		Contact Rating	Lead Length	Actuator Height	Pricing			
					L"	W"	D"	A"	B"				1	10	100	250
109170CR	3	SPDT on-on	PC mount	Plastic	.22	.45	.23	—	.12	0.5A @ 50VDC	.17"	.15"	\$ .31	\$ .26	\$ .23	\$ .19
161816CR	6	DPDT on-on	PC mount	Plastic	.38	.14	.13	.13	.11	0.1A @ 20VDC	.11"	.08"	.59	.49	.39	.29

### Special Limited Offers from Other Manufacturers

202770CR	6	SPDT on-on	PC mount	Plastic	.71	.36	.38	.19	.20	0.1A @ 30VDC	.17"	.32"	*	\$ .095	\$ .087	\$ .079
202981CR	4	SP3T on-on-on	PC mount right angle	Metal	.61	.24	.18	—	.10	0.3A @ 125VAC	.26"	.15"	*	.11	.099	.09
203001CR	3	SPDT on-off-on	PC mount right angle	Metal	.36	.20	.39	—	.11	0.1A @ 28VDC	.18"	.10"	.29	.25	.20	.15
204142CR	3	SPDT on-on*	PC mount	Plastic	.77	.40	.37	—	.19	2.0A @ 28VDC	.19"	.17"	.39	.37	.29	<b>.22</b>
202972CR	6	DPDT on-on	PC mount	Plastic	.77	.43	.29	.24	.18	1.0A @ 24VDC	.21"	.51"	.20	.16	.14	.13
202930CR	6	DPDT on-on	PC mount	Plastic	.76	.44	.29	.22	.18	4A @ 28VDC	.23"	.40"	*	.082	.074	.067

\* Side actuated # Plastic: 6/6 nylon; metal: steel zinc plated

JAMECO ValuePro

## Pushbutton Switches

**New Lower Prices**

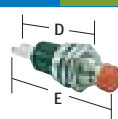


Figure 1

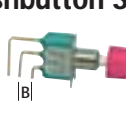


Figure 2

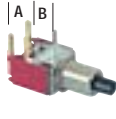


Figure 3

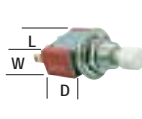


Figure 4



Figure 5



Figure 6



Figure 7

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing		Contact Rating	Terminal Type	Button Color	Pricing				
							A"	B"				1	10	100	250	1000
26622CR	MS102	1	2	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	\$ .55	\$ .50	\$ .45	\$ .35	\$ .29
26649CR	MS103	1	2	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.55	.50	.45	.35	.29
154879CR	PS11-123	2	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	1.19	1.09	.99	.89	.80
71642CR	SWB210	3	2	7/32"	SPST off-(on)	.36 x .20 x .33	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99	1.78	1.60	1.39
121304CR	CK8121	4	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.59	3.25	2.95	2.65	2.39
28062CR	PB126	4	3	1/4"	SPDT on-(on)	.52 x .28 x .38	—	.185	5A @ 120VAC	Solder lugs	Red	3.69	3.35	2.85	2.29	1.99
22201CR	J1881	5	2*	3/8"	SPST on-off, Alt†	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	1.19	1.09	.94	.83	.72
22219CR	J1882	5	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	1.09	.98	.88	.79	.70
174414CR	R13-510A	6	2	1/2"	SPST off-(on)	.67 (L) x .31 (D)	—	.167	3A @ 125VAC	Solder lugs	Red	.79	.78	.77	.74	.69
307889CR	DS133	7	2	29/64"	SPST off-(on)	1.03 x .56 x .46	—	—	10A @ 125VAC	Solder Lugs	Black	4.15	3.75	3.49	3.49	3.49

### Special Limited Offers from Other Manufacturers

154878CR	PS11-123	2	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	<b>\$ .77</b>	<b>\$ .68</b>	<b>\$ .62</b>	<b>\$ .53</b>	<b>\$ .41</b>
200774CR	TP12SH8AOE	3	3	7/32"	SPDT off-(on)	.32 x .20 x .33	.20	.10	1A @ 120VAC	PC right angle	Black	<b>4.79</b>	<b>4.35</b>	<b>3.65</b>	<b>2.75</b>	<b>1.99</b>
22200CR	J1881	5	2*	3/8"	SPST on-off, Alt†	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	<b>1.09</b>	<b>.98</b>	<b>.83</b>	<b>.67</b>	<b>.50</b>
22218CR	J1882	5	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	<b>.98</b>	<b>.88</b>	<b>.79</b>	<b>.71</b>	<b>.62</b>

† Alt = alternate action

\* Lead wires

## 30-Day Money-Back Guarantee

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### Toggle Switches at Awesome Prices!



75889CR



75969CR



105814CR



75871CR

Jameco Part No.	Product No.	Jameco® Price	Digi-Key® Price	Mouser® Price	Newark® Price	Minimum Savings	Discount
75889CR	GTS107	<b>\$1.99</b>	\$5.82	\$5.06	\$5.74	<b>\$3.07</b>	<b>60.7%</b>
75969CR	GTS302	<b>\$1.55</b>	\$3.31	\$3.16	Not Offered	<b>\$1.61</b>	<b>50.9%</b>
105814CR	ALCO A208	<b>\$1.59</b>	\$6.30	\$2.34	Not Offered	<b>\$0.75</b>	<b>32.1%</b>
26331CR	GTS103-P	<b>\$1.39</b>	\$5.43	\$2.03	Not Offered	<b>\$0.64</b>	<b>31.5%</b>
75871CR	MTS-102-A3	<b>\$1.49</b>	\$4.98	\$2.03	Not Offered	<b>\$0.54</b>	<b>26.6%</b>

These are single unit prices taken from each party's website on September 13, 2004, and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

## Switchcraft® Button-Switch® and Cord-Switch®

### 297300CR: Button-Switch®

- SPST-on (on)
- Color: black
- Mounting hole size: .469"
- Panel thickness: .297" max.
- Rating: 250mA, 30W maximum, AC, non-inductive load
- Compatible with P/N 297502CR



297300CR

### 297502CR: Cord-Switch®

- Copper alloy plated housing and switch bushing
- Plastic insulation
- SPST-on (on) red pushbutton switch (same rating as P/N 297300CR)
- Maximum cable outside diameter: .375"



297502CR

Part No.	Product No.	Description	1	10	25
297300CR	913	Button-switch	\$2.55	\$2.36	\$2.18
297502CR	ED903	Cord-switch	10.49	8.55	8.43



For additional Switchcraft Products see pages 80 - 81.



## Pushbutton Switches

• Contact rating: 3A @ 125VAC • 2-pin • Lead type: solder terminal

164566CR /164638CR: Contact rating: .5A @ 125VAC 164582CR /164671CR: Contact rating: 1A @ 125VAC

106112CR: Contact rating: 3A @ 110VAC

Mountain  
switch



Figure 1



Figure 2

## Miniature Soft Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing			
								1	10	100	1000
164494CR	DS450R	1	SPST off-on	1.2"L x .59"Dia.	.175"	.387"	Red	\$1.84	\$1.77	\$1.70	\$1.63
164486CR	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	1.66	1.60	1.54	1.48
164523CR	DS466R	2	SPST off-(on)	1.2"L x .60"Sq.	.160"	.383"	Red	1.69	1.62	1.56	1.50
196921CR	196921I	2	SPST off-on	1.6"L x 1.6"Sq.	.189"	.450"	Red	1.69	1.49	1.22	.91
164558CR	DS471R	3	SPST off-(on)	1.2"L x .75"Sq.	.160"	.387"	Red	1.69	1.62	1.56	1.50



Figure 3



Figure 4



Figure 5



Figure 6

## Standard Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing			
								1	10	100	1000
164566CR	MS402R	4	SPST off-(on)	.73"L x .22"Dia.	.078"	.190"	Red	\$1.25	\$1.18	\$1.12	\$1.06
164582CR	DS016B	5	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	1.49	1.39	1.25	1.15
164638CR	MS3120R	6	SPST off-(on)	1.1"L x .31"Dia.	.175"	.268"	Red	1.32	1.19	1.07	.96
164671CR	NS801MOB	7	SPST off-(on)	1.1"L x .59"Dia.	.213"	.468"	Black	2.19	1.89	1.79	1.65
106112CR	DS412R*	8	SPST off-(on)	.63"L x .66"Dia.	.275"	.750"	Red	1.19	1.05	.99	.97

\* Solder lugs



Figure 7



Figure 8



## Pushbutton Switches

### IP and AV Series Pushbutton Switches

• Panel mount

171758CR /171766CR: IP Series

• Initial contact resistance: 50mΩ max.

• Insulation resistance: 1GΩ min. @ 500VDC

• Mounting hole: 1/2"Dia.

• Dielectric strength: 1500Vrms min.

• Mechanical life: 1,000,000 cycles min.

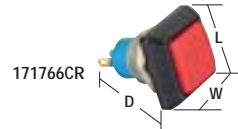
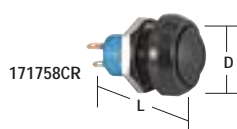
171774CR: AV Series

• Initial contact resistance: 10mΩ max.

• Insulation resistance: 1000MΩ min.

• Mounting hole: 3/4"Dia.

• Dielectric strength: 1000Vrms min.



Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions			Lead Spacing	Contact Rating	Terminal Type	Pricing			
				L	W	D				1	10	100	250
171758CR	IPR3SAD2	2	SPST off-(on)	0.82"	—	0.46"	0.19"	0.2A @ 250VAC	Solder	\$10.39	\$9.35	\$8.45	\$7.49
171766CR	IPC3SAD6	2	SPST off-(on)	0.82"	0.69"	0.46"	0.19"	0.2A @ 250VAC	Solder	10.39	9.35	8.45	7.49
171774CR	AV191003C900	2	SPST off-(on)	1.20"	—	0.87"	0.37"	0.2A @ 48VDC	Screw	11.95	10.84	9.75	8.79



## Miniature Basic Lever Switches

• 3 terminals: common; normally open; normally closed

• Size: 1.10"L x 0.40"W x 0.63"H



187805CR



191388CR



159581CR/187792CR  
203545CR



159572CR



Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Resistance (Initial)	Service Life (Mech./Elec.)	Terminal Type	Pricing		
									1	25	50
159572CR	VS10N051C	Highly Electric	Hinge roller (0.60"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	\$2.89	\$2.54	\$2.28
159581CR	VS10N021C2	Highly Electric	Hinge lever (1.05"L)	SPDT-NC	10A@125VAC, 10A@250VAC	15milliΩ (max.)	10M/100k	.183" quick connect	2.45	2.25	1.99
191388CR	V3-715	Honeywell	Pin plunger	SPDT-NC	0.5A@125VAC, 10A@250VAC	—	10M/1M	.220" solder	1.55	1.25	.93
203545CR	V7-3E11D8-022	Honeywell	Hinge lever (1.07"L)	SPDT-NC	0.5A@125VAC, 10A@250VAC	—	10M/100k	.183" quick connect	4.05	3.19	2.39
187792CR	V-10G2-1C24K	Omron	Hinge lever (1.08"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.45	2.25	1.99
187805CR	V-10G3-1C24K	Omron	Long hinge lever (2.01"L)	SPDT-NC	0.1A@125VAC, 10A@250VAC	30milliΩ (max.)	50M/300k	.183" quick connect	2.75	2.48	2.29



## SS Subminiature Basic Switches

• Economical, subminiature basic switch offers long service life

• Free from overtravel restrictions, permits easy setting

• Lead spacing: A = 0.35"; B = 0.29"

• Dimensions: 0.78"L x 0.25"W x 0.40"H



187709CR



187733CR



159599CR

Part No.	Product No.	Manufacturer	Actuator Type	Contact Form	Contact Rating	Contact Force	Service Life (Mech./Elec.)	Terminal Type	Pricing		
									1	25	50
187709CR	SS-SGL	Omron	Hinge lever (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	\$1.59	\$1.45	\$1.29
187733CR	SS-SGL2	Omron	Hinge roller (0.6"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	50g	30M/200k	Solder	1.25	1.09	.99
159599CR	SS0505A	Highly Electric	Hinge roller (0.7"L)	SPDT-NC	5A @ 125VAC, 3A @ 250VAC	45g	30M/200k	Solder	3.25	2.92	2.59

## Corporate Customers

Opening an account is easy!! Call 1-800-831-4242 for details today.



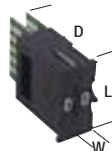


## Pushbutton Binary Coded Decimal (BCD) Switch

26788CR (2 switches shown)

## Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26817CR



### Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting with end plates
- Switches snap together

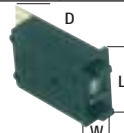
Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	Pricing			
					1	10	50	100
26788CR	MX72	10-position pushbutton	1.2 x 0.3 x 1.7	0.19"	\$5.69	\$5.15	\$4.65	\$4.15
26761CR	MXEP2	Mounting end plates for 26788	1.2 x 0.2 x 1.1	—	1.15	.99	.89	.79
26817CR	MX83	10-position thumbwheel	1.2 x 0.3 x 1.9	0.25"	4.49	3.95	3.55	3.19
26770CR	MXEP3	Mounting end plates for 26817	1.2 x 0.2 x 1.3	—	1.05	.88	.84	.77



## Mini Pushbutton BCD Switch

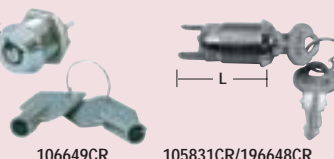
- Operating temperature: -10°C to +65°C
- Switches snap together
- Positive logic (\*0" all open output)
- 28VDC @ 10A
- Break before make

Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	1	10	100
136557CR	MX061	10-position straight	.59 x .30 x 1.0	0.12"	\$3.79	\$3.41	\$3.06



## SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions
- Mounting hole = 0.75" except P/N 106649CR = 0.5"
- 196648CR: all keys are alike
- Includes: Mounting nut



Part No.	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Terminal	Voltage/Current	Pricing			
						1	10	50	100
106649CR	KS4B	2, .21"	.55"	Barrel	125VAC/3A	\$3.59	\$3.29	\$2.89	\$2.49
105831CR	KS3B	2, .66"	1.48"	.25" quick connect	125VAC/6A	3.99	3.59	3.29	2.99
196648CR	3313E-M	2, .66"	1.48"	.25" quick connect	125VAC/6A	4.49	3.99	3.65	3.29

## Magnetic Reed Switches

- NO (normally open)
- Contact form: SPST

Part No.	Mfr. Cross Ref. No.	Contact Rating	Size (L" x Dia.)	1	10	100	1000
171871CR	MKA141011015	500mA @ 100VDC	0.53 x 0.1	\$7.79	\$6.64	\$4.46	\$4.41
164081CR	MRS1	1A @ 250VAC; 1A @ 50VDC	1.43"L x 0.2"Dia.	.79	.63	.43	.39



## Plunging into Customer Satisfaction!

A long time ago in a test lab far, far away, I needed to take a prototype multi-drop I/O card designed by another engineer and interface it into my Supervisor Control and Data Acquisition (SCADA) system. Having spent the previous 4 months debugging, testing and finalizing the SCADA system design, I thought the I/O card integration should be a snap.

Yep, I gave myself two days to test the system with the I/O card. I could configure the card in 15 minutes (OK, I'd get a cup of coffee too!), plug it into the PC, and run my test suite. Then I'd have the next day and a half to debug any issues and get more coffee...

Then I got a taste of what it's like to be the customer. First test with JP01 open, then close JP43 and JP44 and test again. Next test with JP02 closed.

Whenever I was pulling off a shorting block, it seemed to slip from my fingers and fall into a small unreachable crevice. Tests failed on numerous occasions because the plug wasn't properly aligned over the header pins. Time and more

time wasted for lack of a good remedy. Nowadays, I refuse to go through that torment. First off, there are shorting plugs with pull-tabs or handles on the end to help you properly grip these tiny devices. On dense boards, you should even consider using plunger switches. These handy compact devices replicate the jumper's switching function without risking misalignment or loss of shorting plug. And at just ten cents a piece in unit quantities, they add almost no incremental cost. Now think about this from your customer's perspective... Did they lose time setting up your product because the jumpers weren't properly seated? Did they have to go out and find more shorting plugs because you didn't supply enough? Will that frustrated customer come back? Try the plunger switches and help them understand why your product stands out in the crowd!

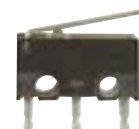


## Practical Practices

Money Saving Tips for the Engineer

## OMRON D2F Series Subminiature Snap-Action Switch

Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.



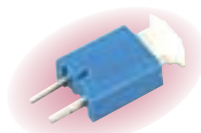
- Actuator type: hinge lever (0.5"L)
- Contact form: SPDT-NC
- Contact rating: 2A @ 30VDC, 3A @ 125VAC
- Initial contact resistance: 30miliΩ max.
- Service life: 1M (mech.); 30k (elec.)
- Terminal type: PCB
- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Lead spacing: 0.2"

Part No.	Product No.	1	25	50
188867CR	D2F-L	\$.89	\$.83	\$.79

## PCB Plunger Switch

Use in Place of Shorting Block

- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L
- 10 piece minimum



Part No.	Description	10	100	1000
172700CR	Plunger switch	\$.10	\$.085	\$.064

## Switch Assortment Kit

Includes:

- 20-drawer component cabinet (81701CR), 20 clear plastic drawers (85454CR), 20 clear dividers (85446CR), pg 120 and 30 adhesive labels for drawers to identify parts in kit
- 10 ea. miniature toggle switches (76523CR, 21936CR, 21910CR, 26331CR, 26315CR, 21979CR, 21952CR, 26366CR, 26358CR), pg 108
- 10 ea. slide switches (109170CR), pg 109
- 10 ea. pushbutton switches (26622CR, 26649CR), pg 109
- 10 ea. DIP switches (38818CR, 38842CR), pg 112
- 10 ea. tactile switches (153251CR), pg 113



81701CR

SAVE \$52

Part No.	Description	Wt. (lbs.)	1	10
85059CR	150 pcs. switch kit	5.0	\$98.95	\$88.95

## Switch Grab Bags



18235CR



135378CR

18235CR: 50 pcs. assorted – toggle, pushbutton, rocker and slide switches

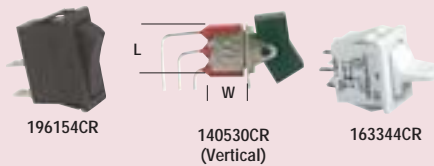
135378CR: 1 lb. (approx. 135 pcs.) assorted – toggle, pushbutton, rocker and slide switches

Part No.	Cross Ref. No.	Wt. (lbs.)	1	10
18235CR	GB165	0.4	\$8.75	\$7.69
135378CR	GB165LB	1.0	18.95	16.95

JAMECO ValuePro

## Rocker and Lever Type Switches

- Contact rating: 5A @ 120VAC; 2A @ 250VAC, except P/N 196154CR: 15A @ 125VAC; 10A @ 250VAC
- Operating temp.: -30° to 85°C
- Electrical life: 50,000 make and break cycles at full load
- Contact resistance: 10mΩ typical
- Dielectric strength: 1000Vrms @ sea level
- Insulation resistance: 10MΩ min., except P/N 196154CR: 100MΩ min.



Part No.	Mfr. Cross Ref. No.	Pins	Type	Dimensions (ins.)			Lead Spacing	Lead Type	Pricing			
				L	W	D			1	10	100	1000
196154CR	R30NSA	2	SPST on-off	1.07	.42	.77	N/A	Panel mt. quick discon.	\$1.75	\$1.59	\$1.44	\$1.35
140531CR	CK7101	3	SPDT on-on	.50	.50	.27	.150"	Right angle PC (vert.)	1.49	1.34	1.21	1.09

### Special Limited Offers from Other Manufacturers

140530CR	CK7101	3	SPDT on-on	.50	.50	.27	.150"	Right angle PC (vert.)	\$1.49	\$1.34	\$1.21	\$1.09
163344CR	CKD103J5W	3	SPDT on-off-on	.67	.47	.59	N/A	Panel mt. solder eyelet	1.05	.85	.68	.50

Electromech

## Rotary DIP Switch

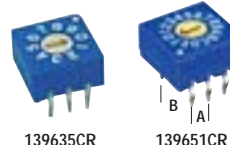
- Fully sealed construction
- Rotor and switch body: plastic (UL94V-0)
- Contact and terminal material: copper alloy plated
- Make and break current rating: 30mA @ 30VDC for 10,000 cycles
- 215992CR: 0.1" x 0.3" pin spacing (standard through hole)



Part No.	Product No.	Position	Adjust	Code type	W" x D" x H"	1	10	100	1000
215992CR	HAB16	16	Top	HEX	.39 x .39 x .20	\$2.45	\$2.10	\$1.85	\$1.55

## Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Op force: 500g-cm max.
- Max. switching load rating: 25mA @ 24VDC
- Material: 94V-0 grade, UL approved fire retardant plastic
- Lead spacing: A = 0.1"; B = 0.3"



Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10	50	100
139635CR	ERD110RS(DRD10)	10	top	BCD	.39 x .39 x .20	\$2.59	\$2.33	\$2.07	\$1.86
139651CR	ERD116RS	16	top	Hex	.39 x .20 x .39	2.75	2.49	2.22	1.99

## Replacement Switches for AT-Style Computer Cases

### PC Pushbutton Switches

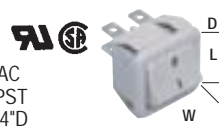
- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D



Part No.	Description	Current	1	10	100
127044CR	PC push button	7.5A ..	\$2.95	\$2.25	\$1.55
174238CR	PC push button	8A .....	2.29	1.95	1.46

### PC Rocker Switch

- For mini-tower cases
- Contacts rated at 250VAC
- UL/CSA approved
- DPST
- Size: 0.9"L x 1.2"W x 1.4"D



Part No.	Description	Current	1	10	100
127028CR	PC rocker	10A ....	\$2.95	\$2.69	\$2.39

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!

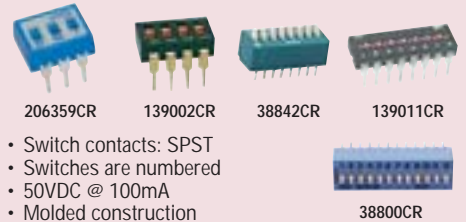
## Pushbutton Switches at Awesome Prices!

Jameco Part No.	Product No.	Jameco® Price	Digi-Key® Price	Mouser® Price	Newark® Price	Minimum Savings	Discount
71642CR	G1B210	\$2.19	\$4.17	\$5.08	Not Offered	\$1.98	47.5%
200774CR	TP12SH8AQE	\$4.79	\$6.42	\$6.37	Not Offered	\$1.58	24.8%
297300CR	913	\$2.55	Not Offered	\$3.21	\$3.76	\$0.66	20.6%
196921CR	196921	\$1.69	\$2.32	\$2.05	Not Offered	\$0.36	17.6%
297502CR	ED903	\$10.49	Not Offered	\$15.91	\$12.64	\$2.15	17.0%
171774CR	AV191003C900	\$11.95	Not Offered	\$13.95	\$14.07	\$2.00	14.3%

These are single unit prices taken from each party's website on September 13, 2004, and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

JAMECO ValuePro

## DIP Switches



- Switch contacts: SPST
- Switches are numbered
- 50VDC @ 100mA
- Molded construction
- Standard switches have raised lever
- LP switches are flush to casing
- Pre-tinned leads

Compatible Socket Chart, see page 91 for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109058CR	112192CR	38827CR	37161CR	101857CR	38113CR
38819CR	51570CR	38842CR	37372CR	38798CR	38607CR
139003CR	51570CR	139011CR	37372CR	38800CR	39378CR
109057CR	112192CR	139002CR	51570CR	101856CR	38113CR
38818CR	51570CR	38826CR	37161CR	38797CR	38607CR
206359CR	51570CR	38834CR	37161CR		

Part No.	Mfr. Cross Ref. No.	Pos.	1	10	100	1000
109058CR	206-2	2	\$ .75	\$ .68	\$ .61	\$ .55
38819CR	206-4	4	.65	.55	.49	.45
139003CR	206-4LP	4	.79	.70	.55	.44
38827CR	206-6	6	.99	.89	.79	.72
38842CR	206-8	8	.89	.80	.72	.64
139011CR	206-8LP	8	.85	.76	.61	.47
101857CR	206-9	9	.85	.79	.69	.49
38798CR	206-10	10	.95	.86	.68	.51
38800CR	206-12	12	1.05	.99	.93	.56

### Special Limited Offers from Other Manufacturers

109057CR	206-2*	2	\$ .75	\$ .68	\$ .61	\$ .55
38818CR	206-4	4	.65	.55	.49	.45
206359CR	206-3*	3	.79	.65	.55	.43
139002CR	206-4LP*	4	.79	.70	.55	.44
38826CR	206-6*	6	.99	.89	.79	.72
38834CR	206-7*	7	.95	.86	.68	.50
101856CR	206-9*	9	.85	.79	.69	.49
38797CR	206-10*	10	.95	.86	.68	.51

\* Manufacturer may vary

JAMECO ValuePro

## Tri-State DIP Switch

- Switch contacts: bussed, tri-state
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- 8 positions
- Two isolated busses
- Pre-tinned leads
- Compatible socket, use P/N 37372CR, pg 91



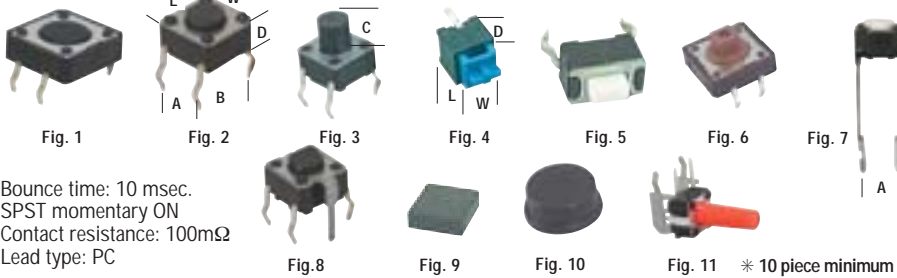
Part No.	Mfr. Cross Ref. No.	1	10	50	100
138991CR	ETA108E .....	\$1.95	\$1.75	\$1.55	\$1.35

Visit [www.Jameco.com](http://www.Jameco.com) ...  
We have a whole new website.



JAMECO ValuePro

## Tactile Switches



- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ
- Lead type: PC

Part No.	Mfr. Cross Ref. No.*	Fig.	Pins	Dimensions (in.)				Lead Spacing		Contact Rating (mA @ VDC)	Button Color	Pricing			
				L	W	D	C	A*	B*			1	10	100	250
122972CR	DTS1212	1	4	.47	.47	.18	—	.20	.50	20 @ 15	Black	\$.26	\$.23	\$.19	\$.17
119010CR	KT11B1CM	2	8	.24	.24	.15	.30	.17	.25	20 @ 15	Black	.27	.24	.22	.20
149948CR	KT11P4CM	3	4	.24	.24	.15	.13	.17	.25	20 @ 15	Black	*	.23	.21	.19
115087CR	KIE22	4	2	.24	.24	.22	—	—	.25	20 @ 15	Blue	*	.216	.195	.175
199727CR	EVQ11A04M	7	2	.24	.24	.14	.30	.20	—	20 @ 15	White	*	.19	.17	.13
200362CR	EVQPB04K†	8	5	.24	.24	.14	.30	.17	.26	20 @ 15	Black	.29	.26	.23	.20
137189CR	PBS103	1	4	.47	.47	.17	—	.20	.50	50 @ 12	Black	.39	.35	.32	.19
153251CR	SDT620K	2	4	.24	.24	.15	.06	.17	.25	50 @ 12	Black	.29	.25	.20	.18
155248CR	KRS-3550-BK	5	2	.24	.14	.15	—	—	.27	50 @ 12	Black	.22	.20	.16	.15
155379CR	KRS-1273B	6	4	.47	.47	.14	.14	.17	.53	50 @ 12	Brown	.39	.35	.31	.26

### Tactile Switch Caps

10 piece minimum

Part No.	Mfr. Cross Ref. No.*	Fig.	Description	Size (in.)	Material	For Use With	10	100	250
155389CR	KRS-CAP-A	9	Square	.47"L x .47"W x .16"H	Plastic	P/N 155379CR	\$.15	\$.11	\$.10
155408CR	KRS-CAP-B	10	Round	.50"Dia. x .25"H	Plastic	P/N 155379CR	.15	.13	.11

### Special Limited Offers from Other Manufacturers

Part No.	Mfr. Cross Ref. No.*	Fig.	Pins	Dimensions (in.)				Lead Spacing		Contact Rating (mA @ VDC)	Button Color	Pricing			
				L	W	D	C	A*	B*			1	10	100	250
115086CR	KIE22	4	2	.24	.24	.22	—	—	.25	20 @ 15	Blue	*	\$.171	\$.108	\$.09
199726CR	EVQ11A04M	7	2	.24	.24	.14	.30	.20	—	20 @ 15	White	*	.171	.153	.117
200361CR	EVQPB04K†	8	5	.24	.24	.14	.30	.17	.26	20 @ 15	Black	.26	.235	.199	.149
155256CR	KRS-3550-WH	5	2	.24	.14	.15	—	—	.27	50 @ 12	White	.35	.315	.236	.177
206341CR	KPT1107A	5	2	.24	.14	.15	—	—	.25	50 @ 12	White	.52	.468	.398	.298
202956CR	KSM06330	11	2	.24	.24	.15	.38	.11	.18	50 @ 24	Red	.35	.315	.268	.20

\* Manufacturer may vary

† 200362CR/ 200361CR: with ground pin



## SP5T Rotary Switch

- Panel mount • Fixed stop • 1/8" screwdriver slotted shaft • 0.06" solder terminals
- 36° angle of throw • Single pole, 5-positions • Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing

SALE



Part No.	Product No.	Description	1	10	100
184727CR	50AB36-01-1-5-F	SP5T panel mount rotary switch	\$1.71	\$1.55	\$1.41

JAMECO ValuePro

## Rotary Switches

- Contact rating: 30VDC @ 0.3A • Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ • Lug size: 0.07" • Mounting hole diameter: 3/8" • Layers: 1
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565CR – plastic casing) • Make before break • Solder lugs
- Compatible with Jameco rotary knobs P/N 102787CR and 104176CR, pg 123 • Panel mount

Quantity SAVE



101573CR

Includes: Washer and nut

Part No.	Mfr. Cross Ref. No.*	Poles	Position	Shaft Size (L" x Dia.)	1	10	100
101531CR	RS0261	1	12	0.46 x 0.25	\$1.29	\$1.10	\$.82
101573CR	RS022	2	6	0.46 x 0.25	1.35	1.15	.90
101565CR	RS023	3	4	1.16 x 0.25	1.95	1.59	1.25
101557CR	RS024	4	3	0.46 x 0.25	1.09	.93	.69

\* Manufacturer may vary

JAMECO ValuePro

## 16-Button Numeric Keypad

- 4 x 4 matrix keypad
- Contact rating: 24VDC @ 20mA
- Life test: 1,000,000 life cycles per key
- 8-position solder pad
- Contact resistance: 200Ω max.
- Size: 3.0"L x 2.8"W x 0.6"H

Part No.	Description	1	10	100
169244CR	Numeric keypad	\$7.95	\$6.95	\$6.25



OMRON

## B3F Series Miniature Tactile Key Switch

Miniature, low profile and easy mounting. Applications: audio, office & communications equipment, measuring instruments, TVs, VCRs, etc.



- Extended mechanical/electrical service life
- Flux-tight base structure allows automatic soldering of the key switch onto a PC board
- Lead spacing: A = 0.18"; B = 0.26"
- Operating force: general purpose 100g
- Dimensions: 4.3 mm x 6.5 mm

Part No.	Type	1	25	50	100
162886CR	B3F-1000	\$.45	\$.40	\$.36	\$.33

JAMECO ValuePro

## 12-Button Telephone Keypads

- White plastic
- 8-pin .100" header
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Tactile type keypad
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H



153488CR

Part No.	Description	1	10	100
190561CR	Numeric keypad	\$8.75	\$7.45	\$5.59
153488CR	Alpha numeric keypad	9.49	8.55	7.69



## 16-Button Keypad Switch

- 1/2" button centers
- Flange mounted
- Top surface or sub-surface mounting
- Snap-dome contact provides positive feedback
- 4" x 4" grid
- Rating @ 24VDC: 10mA resistive
- Contact resistance: 10Ω maximum (compatible with MOS, TTL, and DTL)
- Voltage breakdown: 250VAC between mutually insulated parts
- Life expectancy: 3,000,000 operations per button

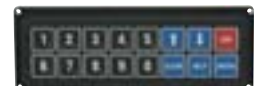
NEW



Part No.	Product No.	1	10	100
302025CR	86BB2-006	\$18.55	\$16.79	\$16.15

## 16-Button Indoor/Outdoor Keypads

- 9-pin .100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190CR header and P/N 100765CR pin, pg 92
- Size (housing): 4.7"W x 1.7"H x 0.4"H



196171CR



152063CR

\* Prepackaged: order in increments of 10 or 100

Part No.	Description	1	10	100
196171CR	2x8 matrix keypad	\$16.95	\$15.29	\$13.75
152063CR	4x4 matrix keypad	14.95	13.49	11.95
103190CR	Header housing (10-pin)	.42	.39	.36
100765CR	Header pin (10 per pack)	*	.11	.09



▲ Marked products ship from a separate warehouse and may not ship same day.  
Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.



## Potter & Brumfield Relays

- UL/CSA approved
- Industry standard termination for quick installation
- Contact arrangements from SPDT to 4PDT
- Wide range of coil voltage for industrial and commercial applications



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7

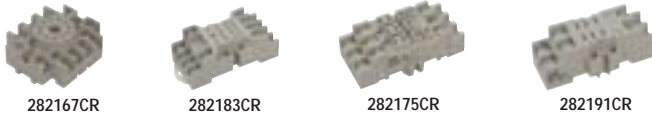


Figure 8

Part No.	Product No.▲	Figure	Contact Form	Coil Voltage	Coil Resistance (Ω)	Coil Current (mA)	Mating Socket		Pricing			
							Standard	DIN Rail	1	10	25	50
282247CR	K10P-11A15-120▲	1	DPDT	120VAC	3,900	11	27E488/489	27E895	\$6.99	\$6.49	\$6.09	\$5.42
282255CR	K10P-11D15-12▲	1	DPDT	12VDC	160	75	27E488/489	27E895	6.99	6.49	6.09	5.42
282263CR	K10P-11D15-24▲	1	DPDT	24VDC	650	37	27E488/489	27E895	5.99	5.69	5.50	5.29
282280CR	KHAU-17A11-24▲	2	4PDT	24VAC	160	52	27E166	27E894	5.45	5.29	5.17	4.77
282271CR	KHAU-17A11-120▲	2	4PDT	120VAC	3,900	11	27E166	27E894	6.29	5.99	5.81	5.37
282301CR	KHAU-17D11-12▲	2	4PDT	12VDC	160	100	27E166	27E894	5.19	4.90	4.85	4.60
282319CR	KHAU-17D12-24▲	2	4PDT	24VDC	650	52	27E166	27E894	5.59	5.39	5.17	4.77
282327CR	KHU-17A11-120▲	3	4PDT	120VAC	3,900	11	27E166	27E894	23.49	21.65	19.29	16.91
300943CR	KRPA-5AG-24	4	SPDT	24VAC	85	84	27E122	27E891	24.55	23.26	21.84	20.06
282431CR	KRPA-5AG-120▲	4	SPDT	120VAC	2,250	17.5	27E122	27E891	14.99	14.21	13.42	12.64
300951CR	KRPA-5AY-120	4	SPDT	120VAC	2,250	17.5	27E122	27E891	24.55	23.26	21.84	20.06
300960CR	KRPA-5DG-12	4	SPDT	12VDC	120	100	27E122	27E891	22.29	21.14	19.85	18.24
282440CR	KRPA-5DG-24▲	4	SPDT	24VDC	472	51	27E122	27E891	14.99	14.21	13.42	12.64
300986CR	KRPA-11AG-6	4	DPDT	6VAC	6	335	27E122	27E891	14.65	14.24	13.81	12.75
282335CR	KRPA-11AG-12▲	4	DPDT	12VAC	24	168	27E122	27E891	15.09	14.32	13.81	12.75
282351CR	KRPA-11AG-24▲	4	DPDT	24VAC	85	84	27E122	27E891	9.99	9.49	9.21	8.49
282343CR	KRPA-11AG-120▲	4	DPDT	120VAC	2,250	17.5	27E122	27E891	10.75	10.21	9.85	9.09
300994CR	KRPA-11AG-240	4	DPDT	240VAC	9,110	8.75	27E122	27E891	14.49	14.09	13.67	12.62
301006CR	KRPA-11AN-12	4	DPDT	12VAC	24	168	27E122	27E891	12.95	12.14	11.32	10.25
301014CR	KRPA-11AN-24	4	DPDT	24VAC	85	84	27E122	27E891	15.99	15.58	14.63	13.45
282360CR	KRPA-11AN-120▲	4	DPDT	120VAC	2,250	17.5	27E122	27E891	11.45	10.89	10.48	9.58
301022CR	KRPA-11AN-240	4	DPDT	240VAC	9,110	8.75	27E122	27E891	18.69	17.70	16.63	15.28
301031CR	KRPA-11AY-24	4	DPDT	24VAC	85	84	27E122	27E891	15.09	14.99	14.15	12.99
301049CR	KRPA-11AY-120	4	DPDT	120VAC	2,250	17.5	27E122	27E891	16.99	16.13	15.14	13.91
301057CR	KRPA-11DG-6	4	DPDT	6VDC	22	188	27E122	27E891	15.89	15.07	14.15	13.31
282378CR	KRPA-11DG-12▲	4	DPDT	12VDC	120	100	27E122	27E891	9.95	9.49	9.21	8.49
282386CR	KRPA-11DG-24▲	4	DPDT	24VDC	472	51	27E122	27E891	9.69	9.21	8.96	8.34
301065CR	KRPA-11DG-48	4	DPDT	48VDC	1,800	26.6	27E122	27E891	16.29	16.13	15.13	13.45
301073CR	KRPA-11DG-110	4	DPDT	110VDC	10,000	11.5	27E122	27E891	12.19	11.54	10.97	9.93
301081CR	KRPA-11DG-125	4	DPDT	125VDC	10,000	11.5	27E122	27E891	15.85	15.31	14.78	13.64
301090CR	KRPA-11DN-12	4	DPDT	12VDC	120	100	27E122	27E891	15.75	15.58	14.62	12.99
282394CR	KRPA-11DN-24▲	4	DPDT	24VDC	472	51	27E122	27E891	10.39	9.89	9.53	8.80
301102CR	KRPA-11DN-110	4	DPDT	110VDC	10,000	11.5	27E122	27E891	16.05	15.58	14.63	13.45
301111CR	KRPA-11DY-24	4	DPDT	24VDC	472	51	27E122	27E891	14.65	14.24	13.81	12.75
301145CR	KRPA-14AN-24	4	3PDT	24VAC	85	84	27E123	27E892	18.15	17.18	16.12	15.17
282415CR	KRPA-14AN-120▲	4	3PDT	120VAC	2,250	17.5	27E123	27E892	12.19	11.58	11.14	10.29
301153CR	KRPA-14AN-240	4	3PDT	240VAC	9,110	8.75	27E123	27E892	19.99	19.29	17.19	15.28
301129CR	KRPA-14AG-24	4	3PDT	24VAC	85	84	27E123	27E892	11.09	10.64	10.17	9.75
282407CR	KRPA-14AG-120▲	4	3PDT	120VAC	2,250	17.5	27E123	27E892	11.79	11.20	10.82	9.98
301137CR	KRPA-14AG-240	4	3PDT	240VAC	9,110	8.75	27E123	27E892	19.29	18.76	17.61	16.19
301161CR	KRPA-14AY-24	4	3PDT	24VAC	85	84	27E123	27E892	17.55	16.64	15.63	14.36
301170CR	KRPA-14AY-120	4	3PDT	120VAC	2,250	8.75	27E123	27E892	18.25	17.70	16.16	14.36
301188CR	KRPA-14DG-12	4	3PDT	12VDC	120	100	27E123	27E892	12.99	12.66	12.28	11.40
282423CR	KRPA-14DG-24▲	4	3PDT	24VDC	472	51	27E123	27E892	11.29	10.73	10.34	9.54
301196CR	KRPA-14DG-48	4	3PDT	48VDC	1,800	26.6	27E123	27E892	18.99	17.97	16.88	15.50
301209CR	KRPA-14DG-110	4	3PDT	110VDC	10,000	11.5	27E123	27E892	18.99	18.19	17.44	16.10
301217CR	KRPA-14DN-24	4	3PDT	24VDC	472	51	27E123	27E892	18.39	17.44	16.38	15.05
282458CR	KUHP-11A51-120▲	5	DPDT	120VAC	1,700	24	—	—	10.25	9.99	9.77	8.93
282466CR	KUL-11A15S-120▲	6	DPDT	120VAC	3,700	30	27E121	27E893	32.29	31.23	27.84	26.19
282474CR	KUP-14A15-120▲	7	3PDT	120VAC	1,700	24	27E121	27E893	9.69	9.21	8.96	8.59
282482CR	KUP-14A35-120▲	7	3PDT	120VAC	1,700	24	27E121	27E893	11.65	11.07	10.26	9.59
282503CR	KUP-14D15-24▲	7	3PDT	24VDC	472	51	27E121	27E893	10.39	9.87	8.89	7.90
282491CR	KUP-14D15-110▲	7	3PDT	110VDC	10,000	11	27E121	27E893	13.09	12.44	11.63	9.78
282538CR	R10-E1X4-V185▲	8	4PDT	12VDC	185	60	27E163	27E461	14.55	13.82	12.86	12.39



## Relay Sockets



### Relay Sockets for KRPA Series (Octal)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282132CR	27E122▲	DPDT	8	Standard	\$3.59	\$3.49	\$3.45	\$3.16
282159CR	27E891▲	DPDT	8	DIN Rail	4.49	4.27	4.10	3.76
282141CR	27E123	3PDT	11	Standard	4.89	4.65	4.24	3.77
282167CR	27E892▲	3PDT	11	DIN Rail	7.15	6.79	6.19	5.50

### DIN Rail Relay Socket for KHAU Series

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282183CR	27E894▲	4PDT	14	DIN Rail	\$7.15	\$6.79	\$6.50	\$5.78

### Relay Sockets for KUP Series (11-blade square)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282124CR	27E121▲	3PDT	11	Standard	\$6.29	\$5.99	\$5.47	\$5.00
282175CR	27E893▲	3PDT	11	DIN Rail	6.89	6.55	6.38	5.80

### DIN Rail Relay Socket for K10 Series (8-blade square)

Part No.	Product No.	Contact Arr.	Pins	Type	1	10	25	50
282191CR	27E895▲	DPDT	8	DIN Rail	\$5.05	\$4.80	\$4.38	\$3.90

## BB DIN Rail Mount Socket and Track Mounting System

For use with KHAU, KUP, and K10 series DIN relay sockets

**282204CR:** End clip insulator for preventing sockets from moving sideways or sliding off track

**282108CR:** Steel mounting clip with #6-32 screw (7/16")



Part No.	Product No.	Description	1	10	25	50
282204CR	40G432▲	Mounting plastic Insulator	\$5.59	\$5.57	\$5.55	\$4.46
282108CR	24A071▲	Steel mounting clip	.49	.46	.40	.35
282116CR	24A110▲	36" mounting track	9.39	8.92	8.54	6.93

## BB S89R Series Bistable, Impulse Relay

- Contact rating: 15A
- Nominal power: 9W@25°C
- Contact life: 10 million operations; 50,000 mechanical operation
- Initial breakdown voltage: 1,500Vrms, 60Hz
- Dust cover with octal plug-in base
- Current: 75mA



Part No.	Product No.	Voltage	Resistance	1	10	25	50
282546CR	S89R11APP1-120▲	120VAC	260Ω	\$32.80	\$32.14	\$27.39	\$27.09

## BB VF4 Series 40A General Purpose Plug-In Relay

- Expected life: 10 million operations; 100,000 mechanical operations @ 40A
- SPDT
- Dielectric strength: 500Vrms between contact and coil
- Initial operate time: 7ms typical with rated coil voltage applied
- 0.250" quick connected and printed circuit terminals

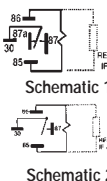


Part No.	Product No.	Voltage	Resistance	1	10	25	50
282554CR	VF4-45F11▲	12VDC	90Ω	\$3.19	\$3.03	\$2.78	\$2.48

## Potter & Brumfield Type Plastic Enclosed Construction Relays

### VF4 Type

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A
- Terminal type: quick connect
- Coil voltage: 12VDC except P/N 171521CR (5VDC)
- Normally open (NO), normally closed (NC)
- Dimensions: 1.1"L x 1.1"W x 1.0"H



Part No.	Mfr. Cross Ref. No.	P&B Cross Reference	Fig.	Contact Form	Coil Ohms	Contact Schematic	Contact Voltage	Pins	Pricing			
171459CR	LD1A-12F	VF4-81F11S01	3	SPST-NO	78	2	14VDC	4	\$1.89	\$1.75	\$1.55	\$1.29
171441CR	961A-1A12D	VF4-11F11	2	SPST-NO	90	2	14VDC	4	2.35	2.20	2.14	2.09
171521CR	LD5F	VF4-45D11	1	SPDT	14	1	5VDC	5	1.69	1.35	1.05	.71
148582CR	LD12F	VF4-85F11	1	SPDT	78	1	12VDC	5	2.49	2.25	1.95	1.75
171432CR	961A-1C-12DM	VF4-81F11	1	SPDT	90	1	12VDC	5	2.99	2.69	2.25	1.65



## W58 Series Thermal Circuit Breakers

- Max. operating voltage: 50VDC; 250VAC 50/60Hz
- Interrupt capacity: 2,000A @ 50VDC; 1,000A @ 250VAC 50/60Hz
- Endurance cycling: >1,000 operations @ 200% of rating
- Dielectric strength: >1,500Vrms
- Push button to reset breaker



Part No.	Product No.	Amp	Resistance	1	10	25	50
282562CR	W58-XB1A4A-10▲	10	0.014	\$2.99	\$2.95	\$2.89	\$2.69
282571CR	W58-XB1A4A-15▲	15	0.010	3.19	3.03	2.97	2.81
282589CR	W58-XB1A4A-20▲	20	0.006	3.19	3.03	2.97	2.81
282597CR	W58-XB1A4A-30▲	30	—	3.19	3.03	2.97	2.81

## BB CNS Series Multifunction Time Delay Relays

- DPDT
- Rating: 10A @ 30VDC or 277VAC
- Electrical life: 100,000 operations at rated load
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms, 60Hz between all other conductors

Power requirement: 10W @ 240VAC/VDC;  
5W @ 120VAC/VDC; 1W @ 25VAC/VDC

282212CR



Part No.	Product No.	Voltage	Timing Functions	Pins	1	10	25	50
282212CR	CNS-35-92▲	24-240VAC/VDC	4	8	\$62.89	\$59.75	\$55.71	\$52.87
282211CR	CNS-35-96▲	24-240VAC/VDC	8	11	71.65	68.07	66.42	66.14



## CNT Series Multifunction, Digital Time Delay Relay/Counter

- Digital adjustment via thumbwheel switches
- Maximum count: 1 to 999; 10 to 9,990; 100 to 99,900
- Maximum count rate: 100 counts per second
- Rating: 10A @ 30VDC or 277VAC resistive
- Electrical life: 100,000 operations min. at rated load
- 11-pin octal style plug
- DPDT
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms between all other contacts



Power requirement: 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 24VAC/VDC

Part No.	Product No.	Voltage	1	10	25	50
282239CR	CNT-35-96▲	24-240VAC/VDC	\$82.95	\$81.99	\$81.04	\$78.50

## BB ODC Series Input/Output Module Relay

- Switch form: SPST-NO
- Red case DC output module
- 3A, 3-60VDC output
- Isolation: 4,000Vrms, 60Hz
- Capacitance: 8pF typical (input to output)



Part No.	Product No.	Voltage	Resistance	1	10	25	50
282511CR	ODC-5▲	5VDC	250Ω	\$9.25	\$8.99	\$8.85	\$8.06



## PRD Series Heavy Duty Open Relay

- SPDT
- Expected life: 100,000 operations at rated load
- Contact rating: 25A @ 277VAC
- Current: 85mA
- Nominal power: -9.8W @ 25°C
- Auxiliary snap action switch rating: 5A @ 120VAC, 60Hz
- Initial breakdown voltage: 2,000Vrms min. between all elements and ground



Part No.	Product No.	Voltage	Resistance	1	10	25	50
282520CR	PRD-5AY0-120▲	120VAC	290Ω	\$19.79	\$18.24	\$16.25	\$14.19

## Relay Socket with Coil Diode

### VF4 Type

- For use with P/N 148582CR, left
- 12 AWG: 2 black & 1 blue wire; 18 AWG: 1 black & 1 red wire
- Contact voltage/current: 12V/20A
- Diode coil suppression
- 7.5" wire



Part No.	Ref. No.	1	10	50	100
170624CR	RSD03	\$2.35	\$2.15	\$1.89	\$1.55

## 30-Day Money-Back Guarantee

For details see page 239.

Quantity  
**SAVE**

## Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy: 10 million operations
- Electrical life expectancy: 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

104926CR: Open frame relay

129349CR: Immersion cleanable, plastic sealed case

144186CR: For use with universal relay card (P/N 128910CR, pg 231)



Fig. 1

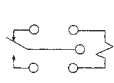


Fig. 2



Fig. 3



Fig. 4

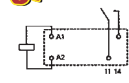


Fig. 5

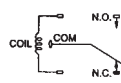


Fig. 6

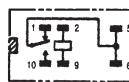


Fig. 8

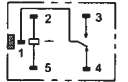


Fig. 7

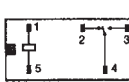


Fig. 9



Fig. 10



Fig. 11

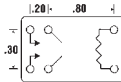
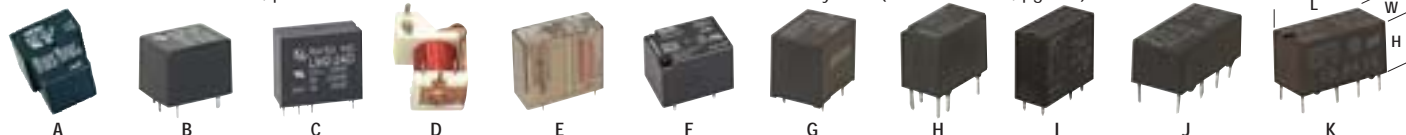


Fig. 12



Part No.	Product No.	Manufacturer	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing			
												1	10	50	100
145752CR	T90S1D12-12*	Magnecraft	T90S1D12-12	1A	SPST	12VDC	155	240VAC	30A	5	1.2 x 1.0 x .77	\$2.45	\$2.10	\$1.85	\$1.49
195864CR	RP838012	Schrack	—	5E	SPST	12VDC	270	250VAC	12A	4	1.1 x .48 x 1.0	1.35	1.09	.81	.57
134949CR	FKD130PSC5V	Rayex	T90S5D12-5	1A	SPDT	5VDC	27	240VAC/28VDC	20A	6	1.3 x 1.1 x .80	2.49	2.15	1.93	1.65
174449CR	LU-5	Rayex	T81H5D215	3B	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.79	1.66	1.55	1.49
187151CR	G5LE-1DC5	Omron	—	7G	SPDT	5VDC	63	120VAC/30VDC	10A/8A	5	.90 x .65 x .75	1.49	1.30	1.15	1.15
187240CR	G5V-1-DC5	Omron	—	8H	SPDT	5VDC	166.7	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.05	1.79	1.59	1.59
104926CR	733SPDT12VDC*	Song Chuan	T90N5D12-12	1D	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	1.85	1.69	1.49	1.27
129349CR	832-IC-S	Song Chuan	T90S5D12-12	1A	SPDT	12VDC	155	277VAC/28VDC	20A/10A	6	1.2 x 1.0 x .75	2.11	1.90	1.69	1.39
186669CR	G2R-14-DC12	Omron	—	9I	SPDT	12VDC	275	250VAC/30VDC	10A	5	1.2 x .51 x 1.0	2.99	2.62	2.31	2.09
172937CR	JS1-12V	Nais (Aromat)	T72M5D121-12	6F	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.09	.99	.89	.75
144186CR	JZC-22F	Velleman	VR15M121C	2B	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.79	3.39	3.05	2.75
174431CR	LEG12F	Rayex	T7CS5D12	2B	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29	1.19	1.09
184461CR	G5V-1-DC12	Omron	—	8H	SPDT	12VDC	960	125VAC/24VDC	.5A/1A	6	.50 x .30 x .40	2.25	1.79	1.58	1.42
187282CR	G6A-234PSTUSDC5	Omron	—	10J	DPDT	5VDC	125	125VAC/30VDC	.3A/1A	8	.80 x .33 x .40	3.95	3.63	3.33	3.07
174377CR	LM2-12D	Rayex	RKA5DZ12	4C	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25	1.95	1.75
187258CR	G5V-2-DC12	Omron	—	11K	DPDT	12VDC	288	125VAC/30VDC	.5A/2A	8	.81 x .40 x .45	2.49	2.28	2.02	1.82
200740CR	G5V-2-H1-24	Omron	—	11K	DPDT	24VDC	2800	125VAC/24VDC	.5A/1A	8	.81 x .40 x .45	2.59	2.35	1.89	1.39
215909CR	RKA-7DZ-12	P & B	—	12I	DPST-NO	12VDC	270	250VAC/24VDC	5A/5A	6	1.16 x .57 x 1.05	2.29	1.95	1.69	1.39

\*Manufacturer may vary

## General Purpose Relays

### LB2 Series

- Contact rating: 240VAC/30VDC @ 12A • DPDT
- Mechanical life: 10,000,000 operations • 8-pin
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	50	100
172718CR	LB2-12DS	K10-11D15-12	12VDC	\$4.99	\$4.49	\$3.99	\$3.59
175564CR	LB2-24DS	K10-11D15-24	24VDC	5.99	5.49	4.93	4.49
175572CR	LB2-110AS	K10-11A15-120	110VAC	6.25	5.49	4.99	4.39

### LB4H Series

- Insulation resistance: 1,500MΩ @ 500VDC
- Mechanical life: 10,000,000 operations • 4PDT
- Contact rating: 240VAC/30VDC @ 5A • 14-pin
- Electrical life: 100,000 operations min. at rated load

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	25	50
291506CR	LB4H-12DS	KHAU-17D12-12	12VDC	\$4.45	\$4.33	\$4.20	\$4.03
175601CR	LB4H-24DS	KHAU-17D12-24	24VDC	5.09	4.93	4.77	4.36
175610CR	LB4H-110AS	KHAU-17A12-120	110VAC	4.69	4.58	4.47	4.24

### Relay Socket

- DIN rail snap socket for LB2 & LB4H relays

Part No.	Product No.	P & B Cross Ref.	Pins	1	10	50
175530CR	PTF-08A-A	27E895	8	\$5.95	\$5.39	\$4.85
175556CR	PYF-14A-A	27E894	14	3.95	3.49	2.95

## KHAU Type Relay

- Insulation resistance: 1,500MΩ @ 500VDC • 4PDT • 14-pin
- Life: (mechanical) 10,000,000 operations; (electrical) 100,000 operations min. at rated load • Contact rating: 220VAC/24VDC @ 5A

Part No.	Product No.	P & B Cross Ref.	Coil Voltage	1	10	25	50
183011CR	GM4PDT12DF	KHAU-17D12-12	12VDC	\$6.95	\$6.38	\$6.04	\$4.99

## Beta Electric General Purpose Relays

### Pin Type Terminals

- DPDT • 8-pin octal style plug
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient operating temp.: -10°C to +50°C
- Size: 1.4"L x 1.4"W x 2.7"H

### BTA1 Series Relays

Part No.	Product No.	NTE Cross Ref.	Coil Voltage	1	10	50
139766CR	BTA1-2C-12VDC	R02-11D10-12	12VDC	\$9.49	\$8.55	\$7.69
139740CR	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79	7.99

### BTA1 Series Sockets

Part No.	Voltage	Current	Pins	Dimensions	1	10	50
141145CR	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	\$3.99	\$3.65	\$2.99
141153CR	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	5.19	4.85	4.19

### BTA2 Series Quick Connect Blade Terminal

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accepts quick-connect receptacles or direct soldering.

- Contact rating: 120VAC/28VDC @ 13A; 240VAC @ 10A
- Ambient temperature operating: -30°C to +50°C
- Size: 1.5"L x 1.4"W x 2.2"H • 3PDT • 11-pin

Part No.	Product No.	NTE Cross Ref.	Coil Voltage	1	10	50
139854CR	BTA2-3C-24VDC	R10-14D10-24	24VDC	\$8.69	\$8.63	\$8.39

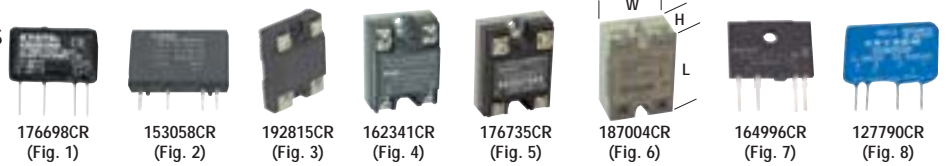
### BTA2 Series Socket

Part No.	Voltage	Current	Pins	Dimensions	1	10	50
141161CR	250VAC	20 amps	11	3.0"L x 1.4"W x 1.0"H	\$3.95	\$3.56	\$3.20



## DC/AC and DC/DC Solid State Relays

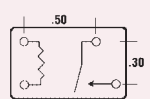
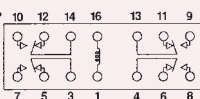
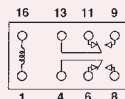
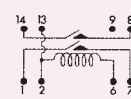
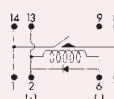
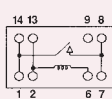
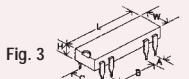
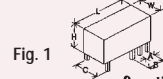
- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Manufacturer may vary
- Zero crossing



Part No.	Product No.	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing			
													1	10	50	100
Solid State Relays DC/AC Type																
153058CR	KSD203AC2	COSMO	4-32VDC	DC/AC	SPST	240VAC	3A	4	2	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.95	\$8.95	\$7.95	\$7.25
162341CR	ESR51024-010	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	15.95	14.39	12.95	11.65
162368CR	ESR51024-025	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	21.95	19.79	17.79	16.05
162405CR	ESR51024-040	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	4	Screw Terminal	UL	1.7 x 1.1 x 2.3	22.99	20.69	18.69	16.79
105081CR	615-8500	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	3	Screw Terminal	UL	1.7 x 1.1 x 2.3	15.99	14.39	12.99	11.69
192815CR	KSD240AC8	COSMO	4-32VDC	DC/AC	SPST	250VDC	40A	4	3	Screw Terminal	—	1.8 x 0.6 x 2.3	17.14	15.58	14.17	13.75
175214CR	KB20C02A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 1.5	5.95	5.69	5.32	5.05
127790CR	D2W202F	Crydom	3-32VDC	DC/AC	SPST	280VAC	2A	4	8	Solder Lead	UL/CSA	1.7 x 0.4 x 1.3	7.17	6.59	6.19	6.19
176698CR	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	9.99	8.99	7.99	7.19
176719CR	KD20C40AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	40A	4	5	Screw Terminal	—	1.7 x 0.9 x 2.3	19.99	17.99	16.19	14.59
176735CR	KD20C75AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	75A	4	5	Screw Terminal	—	1.7 x 0.9 x 2.3	39.95	35.99	32.39	29.15
204441CR	TD2420Q	Crydom	4-15VDC	DC/AC	4PST	280VAC	20A	13	—	Solder Lead	UL/CSA	2.3 x 1.8 x 0.9	56.95	51.25	43.59	32.69
186992CR	G3NA-210B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	10A	4	6	Screw Terminal	UL/CSA	1.7 x 1.1 x 2.3	14.29	13.55	12.89	12.25
187004CR	G3NA-220B-DC5-24	Omron	5-24VDC	DC/AC	—	240VAC	20A	4	6	Screw Terminal	UL/CSA	1.7 x 1.1 x 2.3	19.95	17.95	15.95	13.95
164988CR	S101S02	Sharp	1.2VDC@20mA	DC/AC	—	125VAC	1.5A	4	7	Solder Lead	UL/CSA	0.9 x .16 x .63	3.95	3.49	2.95	2.25
164996CR	S202TA1	Sharp	1.2VDC@20mA	DC/AC	—	200VAC	2.0A	4	7	Solder Lead	UL/CSA	0.9 x .16 x .63	4.95	4.49	4.05	3.65
Solid State Relay DC/DC Type																
172591CR	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	\$9.95	\$8.95	\$7.95	\$6.95
175222CR	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	11.95	11.25	10.25	9.22
176647CR	KG1005D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	5A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	26.99	24.29	21.79	19.59
176655CR	KG1010D	Kyoto	3-32VDC	DC/DC	SPST	120VDC	10A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	29.99	26.99	24.29	21.89

## DIP Relays

- Logic control levels
- Long life with reliable operation
- Moisture resistant
- Compatible with IC sockets
- Compact design/construction
- Excellent for PCB applications



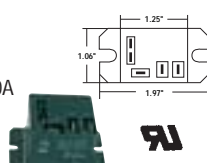
Part No.	Mfr. Cross Reference No.	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing			
106462CR	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	\$2.15	\$1.81	\$1.52	\$1.25
138430CR	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95	1.65	1.34
215896CR	OJE-SS-109LMF	OEG	6	SBT-NO	9VDC	400	250VAC/30VDC	3A/3A	4	—	1	.71 x .39 x .57	.50 x .60 x .30	2.29	1.95	1.69	1.39
106471CR	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.29	1.95	1.65	1.39
138448CR	2D1A1200	Excel Cell Elect.	2	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.25	1.95	1.75	1.49
138456CR	202A05	Excel Cell Elect.	3	DPST-NO	5VDC	140	100VDC	0.5A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	3.49	3.15	2.69	2.19
173913CR	AZ831-2C-5DSE	American Zettler	4	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	2.35	2.15	1.69	1.25
139977CR	RSB5S	Shin Mei	4	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25	1.95	1.75
99338CR	LM12C00	Clare	4	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.79	1.35
99311CR	DS2Y-S-DC12V*	Aromat (NAIS)	4	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.31	2.05	1.75
99901CR	LX200D00	Clare	4	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	6.95	6.25	5.63	4.49
99320CR	LM12E00*	Clare	4	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.95	2.69	2.39	2.15
136549CR	DS4E-M-DC5V*	Aromat	5	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	5.49	4.95	4.45	4.05
176313CR	DS4E-M-DC12V	Aromat	5	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	6.95	6.29	5.29	4.39
206543CR	DS4E-S-DC5V-1C-N137	Aromat	5	4PDT	5VDC	125	250VAC/220VDC	2A	14	112299	2	1.40 x .40 x .42	.20 x .30 x .30	8.45	7.59	6.09	4.59

\*Manufacturer may vary

## T9A Series Relay

### Low Cost PC Board or Panel Mount Only

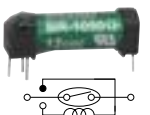
- Contact form: SPDT
- Contact current: 20A/10A
- Coil voltage: 12VDC
- 5-pin
- Contact volt.: 240VAC/28VDC
- Coil: 155Ω
- Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)



Part No.	Cross Ref. No.	P & B Cross Ref.	Dimensions (LxWxH)	1	10	50	100
137357CR	953-IC-12DM	T9AS5D52-12	2.0" x 1.6" x 1.8"	\$2.55	\$2.45	\$2.19	\$1.75

## Reed Type Relay

- Manufacturer: Bestar
- Contact form: SPST-NO
- Coil voltage: 12VDC
- Coil: 1050Ω
- Contact voltage: 120VAC/60VDC
- Contact current: 0.1A
- Dielectric strength: 1500VDC (between contact and coil)
- 4-pin
- Operating temperature: -30°C to +60°C
- Terminal type: PCB solder



Part No.	Mfr. Cross Ref. No.	Dimensions	1	10	50	100
111448CR	RC108T	1.0"L x .37"W x .38"H	\$ .35	\$ .32	\$ .29	\$ .26

## 24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by either a tank in full or empty condition, it will trigger an output status change.



**SALE**

### 176241CR: Control Box

- Input voltage: 24VDC @ 10A
- Output voltage: 24VDC @ 10A
- Size: 2.5"L x 1.8"W x 1.2"H

### 176250CR (Empty)

- Diameter: 1.0"
- Overall Length: 3.9"
- Travel Distance: 2.0"



### 176268CR (Full)

- Diameter: 1.1"
- Overall Length: 2.6"
- Travel Distance: .72"

**Quantity SAVE**

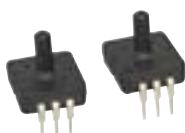


Part No.	Description	1	10	25
176241CR	Control box	\$8.15	\$7.41	\$6.73
176250CR	Sensor empty type	9.95	8.95	7.95
176268CR	Sensor full type	11.45	9.75	7.29



## -1.1 to 2.5 PSI Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x .20"H

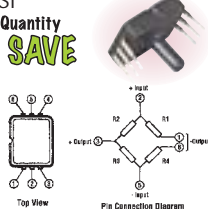


**Quantity SAVE**

Part No.	Product No.	1	10	100
196103CR	XFPN-025-KPGRNW1	\$24.95	\$21.25	\$15.95

## Servoflo 0 to 7 PSI Pressure Sensor

- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability
- Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H



Part No.	Product No.	1	10	100
163731CR	FPM07PG	\$11.95	\$10.19	\$7.65

## 0 to 1.45 PSI Pressure Sensor

- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P<sub>MAX</sub>): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)



Part No.	Product No.	1	10	100
218827CR	MPX10GS	\$8.99	\$7.99	\$7.19

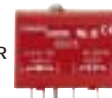
**SALE**

## GORDOS-Type Digital I/O Modules

- Industry standard package and pinout
- High immunity to false operation
- 4000Vrms optical isolation
- Continuous duty
- Color coded by function
- Capacitance: 8pF typical (input/output)



184541CR



Part No.	Mfr. Cross Ref. No.	Description	Input Voltage	Output Voltage	Pricing		
					1	10	50
184541CR	ODC-5	DC output (red)	5VDC	3 to 60VDC @ 3A	\$7.29	\$6.85	\$6.39
184524CR	OAC-5	AC output (black)	5VDC	120VAC @ 3A	6.49	6.19	5.75
184583CR	IDC-5	DC input (white)	3.3 to 32VDC	5VDC	7.91	7.19	6.54



## 12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.5kHz
- Sensing target: inductive type - magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected
- LED status indicator
- Fast response
- 6' long cable
- Pre-tinned pigtail

155547CR (17mm)



167020CR (12mm)



248858CR (12mm)

155571CR (18mm)

Part No.	Product No.	Output Circuit	Effec. Dist. (Iron)	Standard Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing		
							1	10	25
155547CR	S18-05N-1	NPN	0-4.0mm	17 x 17 x 1	1.4 x 1.4 x 0.7	0.112	\$9.95	\$8.95	\$7.95
167020CR	TS12-02N-1	NPN	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	20.65	18.61	16.75
248858CR	TS12-02P-1	PNP	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	19.99	17.99	15.99
155571CR	TS18-05N-1	NPN	0-4.0mm	18 x 18 x 1	1.6"L x 0.70"Dia.	0.70	24.95	22.46	20.21

## Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case



136653CR

### 136653CR:

#### Transmit/Receive Set

- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V pbar) R=3.9kΩ

### 139491CR:

#### Transmit/Receive Set

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V pbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.



139491CR

Part No.	Mfr. Cross Ref. No.	1	10	50
136653CR	40TR16F	\$6.95	\$6.29	\$5.65
139491CR	40TR12B	6.95	6.29	5.65

## Latched Hall Effect Sensor

- SP (south pole): on
- NP (north pole): off
- Supply voltage: 20Vcc
- Supply current: 4mA
- Output current: 20mA
- Max. operating point: ≤ 130
- Max. release point (gauss): ≤ 130



Part No.	Mfr. Cross Ref. No.	1	10	100	1000
174043CR	HI-300	\$0.95	\$0.86	\$0.77	\$0.59

## Vibration/Tilt Switch Sensor

Detects motion or vibration when the switch is mounted such that its main axis is near to the horizontal.

- Contact form: SPDT
- Maximum contact load: 24VDC/115VAC @ 0.5A
- Typical contact resistance: 1Ω (measured at 5VDC @ 0.01A with switch tilted 45° beyond operating point)
- Tilt: one plane only; ±10 degrees included angle
- Minimum operating temperature: -37°C



Part No.	Mfr. Cross Ref. No.	1	10	100
235926CR	Series 3004	\$1.49	\$1.25	\$1.15

Don't worry about backorders.  
Over 99% of our products  
are in stock!

**We'll Send It Today!**

Just place your order by 6PM EST  
for same business day shipment.



## 1.2" (30mm) PCB Mountable Speaker

- Round frame design
- Mylar diaphragm
- Frequency range: 700 – 5000Hz
- Nominal input: 0.15W; max. input: 0.2W
- Ideal for PC board mounting
- Impedance: 8Ω
- Output SPL: 82 dB
- Pin spacing: 15mm



For speaker cables and hookup wire, see page 67.



Part No.	Mfr. Cross Ref. No.	Description	Dimensions	1	10	100
135722CR	PCM415	Solder leads	1.2"Dia. x 0.5"D	\$2.15	\$1.79	\$1.59

## Round Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
135589CR	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	\$1.59	\$1.33	\$1.09
308267CR	GA0501M	2.0 x 0.8	0.25	0.5	8	85	500 – 7800	0.9 x 0.4	1.99	1.79	1.65
10840CR	FE201	2.2 x 0.7	0.2	0.4	8	88	400 – 4500	1.3 x 0.4	1.59	1.35	.99
177130CR	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.54	.49	.43
135714CR	FE202	2.6 x 0.8	0.3	0.5	8	88	340 – 4000	1.3 x 0.4	.65	.56	.50



135589CR Side



135589CR Back

For speaker wire, see page 70

## Square Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
135693CR	FEB200	2.0 x 0.7	0.2	0.3	8	82	500 – 6000	1.3 x 0.5	\$1.59	\$1.45	\$1.29
249463CR	66SF25	2.6 x 0.8	—	0.5	25	10	320 – 4000	1.3 x 0.5	2.49	2.09	1.59
31958CR	FEB216	2.6 x 0.8	0.2	0.4	16	85	330 – 8000	1.3 x 0.5	2.25	1.99	1.79
99995CR	FEB204	2.6 x 0.9	3.0	4.0	4	95	300 – 14000	1.8 x 0.5	2.49	2.25	1.99



99995CR Side



99995CR Back

## Flat-Magnet, Square Piezo Speakers

- Excellent for alarms or other voice uses
- Stainless steel diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input		Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing		
			Nom (W)	Max (W)					1	10	100
34024CR	AZ30S	1.2 x 0.2	0.4	0.8	8	70	1300 – 8000	1.2 x 0.1	\$1.69	\$1.52	\$1.35
76030CR	AZ40S	1.6 x 0.2	0.4	0.8	8	70	600 – 6000	1.6 x 0.1	1.95	1.75	1.49



34024CR Side



34024CR Back

## Alnico Speakers

- For computer case use
- Pre-tinned solder lugs
- Paper diaphragm
- Large magnet
- Wide frequency response
- Impedance: 8Ω

Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia." x D")	Input		Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing		
				Nom (W)	Max (W)				1	10	100
88410CR	A0200	1	2.0 x 0.8	0.2	0.4	87	430 – 4500	0.5 x 0.4	\$1.49	\$1.29	\$1.19
135765CR	A0201C	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.5 x 0.4	1.59	1.35	.99
111587CR	B0102	2	1.7 x 0.6	0.1	0.3	83	500 – 5500	0.5 x 0.4	2.09	1.69	1.39
135811CR	A1527C02	3	1.6 x 2.8 x 1.2	2.0	5.0	82	450 – 20000	0.5 x 0.5	2.95	2.49	2.25



Fig. 1



Fig. 2



Fig. 3

## Micro Speakers

- Impedance: 8Ω



Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia." x D")	Input		Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing		
				Nom (W)	Max (W)				1	10	100
307820CR	GC0201M	1	1.75 x 0.38	0.1	0.2	78	600 – 8000	0.67 x 0.13	\$1.39	\$1.25	\$1.19
307871CR	GC0401M	1	1.57 x 0.67	0.2	0.3	80	600 – 8000	0.71 x 0.43	2.89	2.59	2.49
307846CR	GF0271M	1	1.06 x 0.30	0.1	0.2	82	750 – 3500	0.63 x 0.10	4.25	3.45	3.25
307854CR	GC0251KP*	2	1.0L x 0.55W	1.0	1.5	80	750 – 3500	0.43 x 0.08	1.85	1.75	1.65

\* Rectangular micro speaker



307820CR



307846CR

# Microphone Cartridges

## Omni-directional Electret Condenser Microphone Cartridges

### Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring



116505CR



160979CR



136573CR



196488CR



140986CR

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	Pricing			
												1	10	100	1000
116505CR	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	\$6.69	\$6.62	\$5.50	\$3.33
160979CR	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.72	.65	.52	.35
136573CR	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	10V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48	.43	.39
196488CR	JL-061C	-58 OdB	2kΩ	20-20,000	10V	2.0V	0.04mA	-3dB @ 1.5V	>55dB	Solder pad	.10" x .24"	1.29	.99	.89	.79
140986CR	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Lead wires	.90" x .39"	1.49	1.14	1.05	.89



## Buzzers and Sonic Transducers

Quantity  
**SAVE**

**SALE**

### Magnetic Transducers

• Applied voltage: 1/2 duty, square wave

Part Number	Fig.	Operating Volt. (Vp-p/mA)	Voltage Range (Vp-p)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing			
							1	10	100	1000
138721CR	1	1.5/10	1 - 2	2048	80	.32"H x .46"Dia.	\$1.49	\$1.35	\$1.09	<b>\$0.79</b>
207917CR	2	1.5/30	1 - 2	2048	75	.22"H x .47"Dia.	1.45	1.16	.87	<b>.61</b>
207941CR	3	1.5/80	1 - 2	2731	80	.28"H x .38"Dia.	.68	.62	.57	.51
207968CR	4	1.5/80	1 - 2	2731	80	.22"H x .35"Dia.	.65	.59	.54	.49
207909CR	2	3.6/40	1 - 4	1980	70	.22"H x .47"Dia.	.99	.84	.69	<b>.53</b>
138739CR	1	5/40	3 - 8	2400	85	.35"H x .46"Dia.	1.49	1.29	.99	.89
106500CR	1	5/40	3 - 8	2400	85	.40"H x .48"Dia.	1.49	1.29	.99	.79
207933CR	3	5/100	4 - 8	3100	85	.28"H x .38"Dia.	.66	.60	.55	.50
207950CR	4	5/100	4 - 8	3100	85	.22"H x .35"Dia.	.81	.74	.67	.61



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

### Magnetic Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing			
							1	10	100	1000
207984CR	5	1.5/30	1.25 - 2	2300	75	.47"H x .38"Dia.	\$2.99	\$2.69	\$2.45	\$2.15
76064CR	5	5/30	4 - 7	2300	85	.35"H x .46"Dia.	2.99	2.69	2.45	2.19
207976CR	5	12/30	8 - 15	2300	85	.47"H x .38"Dia.	2.49	2.19	1.99	1.69



Fig. 6



Fig. 7



Fig. 8

### Piezo Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing			
							1	10	100	1000
196357CR	5	12/5.8	3 - 16	4000	86	.30"H x .54"Dia.	\$2.69	\$2.45	\$1.95	<b>\$1.45</b>
138712CR	5	12/7	3 - 16	4000	80	.30"H x .54"Dia.	2.49	2.25	1.79	<b>1.35</b>
207896CR	6*	12/120	6 - 15	2600/3100	105	3.4"L x 2.2"W x 1.3"H	7.95	7.15	5.75	<b>4.29</b>
207888CR	6†	12/120	9 - 15	1500-3100	105	3.4"L x 2.2"W x 1.3"H	5.78	5.25	4.78	<b>4.34</b>
207992CR	7	12/250	6 - 16	3500	105	2.3"L x 1.8"W x 1.6"H	6.95	6.29	5.65	5.09
32601CR	8	24/15	1 - 28	2900	95	1.4"H x 1.7"Dia.	4.95	4.45	3.95	3.59
123537CR	8*	24/20	4 - 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79	3.39	2.95
76021CR	9	24/20	1.5 - 28	3200	95	1.0"H x 1.1"Dia.	4.99	4.49	3.99	3.49

\* Dual tone † Siren



Fig. 9



Fig. 10



Fig. 11

### Mechanical/ElectroMechanical Buzzers

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing			
							1	10	100	1000
24871CR	10	9/30	6 - 12	400	75	1.3"L x 0.7"W x 0.6"H	\$2.49	\$1.99	\$1.79	\$1.79
140695CR	10	12/25	9 - 15	400	75	1.3"L x 0.7"W x 0.6"H	1.79	1.59	1.49	1.29
105822CR	11	9/220	—	500	80	1.3"H x 2.0"Dia.	1.39	1.25	1.15	.91

We want to hear from you. Tell us what you think. E-mail us at [feedback@Jameco.com](mailto:feedback@Jameco.com).

## Component Cabinet, Boxes and Drawers

JAMECO ValuePro

### Component Cabinet



81701CR



Drawer (85454CR) Divider (85446CR)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

\* Prepackaged: order in increments of 10 or 50

Part No.	Description	1	10	50
81701CR	Component cabinet	\$15.95	\$13.95	\$12.49
85454CR	Drawer for cabinet	.39	.35	.29
85446CR	Divider for drawer	*.19	.17	.17

JAMECO ValuePro

### Plastic Flip Top Boxes

- Clear plastic box with a clear plastic lid and removable dividers
- 100255CR: Size: 8.4"L x 4.5"W x 1.4"H
- 18 compartments (1.4" x 1.5" each)
- 148902CR: Size: 10.2"L x 4.7"W x 1.6"H
- 12 compartments (1.7" x 2.3" each)



100255CR

Part No.	Description	1	10	100
100255CR	18 compartments	\$2.25	\$1.95	\$1.75
148902CR	12 compartments	3.95	3.49	2.95

JAMECO ValuePro

### Plastic Flip Top Box

#### Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom
- Size: 6.5"L x 4.0"W x 1.5"H



Part No.	Description	1	10	100
148865CR	Double sided box	\$1.88	\$1.71	\$1.55

JAMECO ValuePro

### Plastic Flip Top Case for SMDs

#### 128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Flip top openings on each bin
- Padded cover locks bins closed
- Perfect match to store P/N 156881CR SMD resistor assortment, pg 57
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs. • Color: gray
- Includes: Labels for each bin



Part No.	Description	1	10
164267CR	SMD flip top case	\$49.95	\$44.99

JAMECO ValuePro

### Stackable Drawers

- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white



Part No.	Description	1	10	100
11906CR	Case/drawers	\$1.83	\$1.66	\$1.51



### Bug Boxes

**SALE**

- Anti-static plastic
- Fits in bug cage (P/N 11332CR, below)
- 11341CR: stores sixty 8-pin or thirty 16-pin DIPs
- 11375CR: Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H

11375CR



11341CR

Part No.	Description	1	10	100
11341CR	30 compartments	\$3.95	\$3.49	\$3.15
11375CR	3 compartment/6 vertical & 6 horizontal dividers	3.95	3.56	3.20



### Bug Trays

**SALE**

- Fits in bug cage (P/N 11332CR, below)
- 11826CR Open: 1 compartment 4.6"L x 3.2"W x 0.4"H
- 11800CR Divided: 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H

11800CR



11826CR

Part No.	Description	1	10	100
11826CR	Open bug tray	\$2.29	\$2.05	\$1.89
11800CR	Divided bug tray	3.19	2.87	2.58



### Bug Cage

**SALE**

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H



Boxes/Trays not included

Part No.	Description	1	10	100
11332CR	Bug cage	\$7.49	\$6.74	\$6.07



135394CR - Electrolytic



135271CR - LEDs



169578CR - Photocells



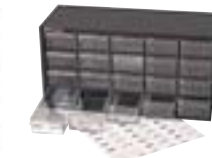
18294CR - Toy Motors



149649CR - Fans



55968CR - Spacers



81701CR - Cabinet

\* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 81701CR, pg 120

Shaded in pink on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213CR) referenced towards the bottom of the page.

## Capacitors

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17857CR	GB100	200 asst. ceramic disc capacitors	0.2 .....	\$4.95	\$4.49
135335CR	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps.	1.0 .....	12.95	11.49
17881CR	GB101	100 assorted mylar capacitors	0.3 .....	5.95	5.35
135458CR	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0 .....	14.95	13.49
17911CR	GB102	100 assorted electrolytic capacitors radial, axial, snap	0.5 .....	4.95	4.49
135394CR	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5 .....	12.95	11.49
17945CR	GB103	100 assorted tantalum capacitors (dipped epoxy and solid tubular)	0.1 .....	9.95	8.95

## Diodes, Transistors and Crystals/Oscillators

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
17961CR	GB107	200 assorted diodes (zener, switching, silicon)	0.1 .....	\$5.95	\$5.35	\$4.79
18171CR	GB127	100 assorted transistors (NPN, PNP, power)	0.1 .....	5.95	5.35	4.79
114446CR	GB150	50 assorted crystals/oscillators	0.2 .....	7.95	6.95	6.25

## Trimmer and Single-Turn Potentiometers

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18075CR	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1 .....	\$6.95	\$6.25
18278CR	GB174	100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	0.2 .....	6.95	6.25
135407CR	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	1.0 .....	15.95	14.39

## Integrated Circuits and Sockets

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17996CR	GB108	100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2 .....	\$6.95	\$6.25
135280CR	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0 .....	16.95	14.95
18024CR	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220	0.6 .....	7.95	6.95
145242CR	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0 .....	16.95	14.95
114964CR	GB171	100 asst. microprocessor series (micros, PALS, RAMS, PROMS, EPROMS)	0.7 .....	12.95	11.49
105620CR	GB120	100 asst. sockets (DIP IC, PGA)	0.3 .....	5.95	5.35
135386CR	GB120LB*	1 lb. (260 pcs) assorted sockets (DIP, PGA, SIMM, SIP, DIN)	1.0 .....	12.95	11.49

## Surprise Computer Products Grab Bag

Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots, oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard, misc. computer products.

• Weight is approximate



Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18331CR	GB190	Component/computer grab bag	20-25 .....	\$17.95	\$15.95

## LEDs and Displays

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
18041CR	GB110	100 assorted sizes & colored LEDs (T1/T1 <sup>3</sup> /4 round and rectangular)	0.1 ...	\$6.95	\$6.29	\$5.65
18323CR	GB186	500 asst. sizes #18041CR LEDs	0.3 ...	19.95	17.95	15.95
135271CR	GB110LB*	1 lb. (1900 pcs) asst. #18041CR LEDs	1.0 ...	44.95	40.95	38.95
18201CR	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5 .....	6.95	5.95	5.35

## 1/4W, 1/2W Resistors and Photocells

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18104CR	GB116	200 asst. 1/4W resistors (5/10%)	0.1 ...	\$5.49	\$4.95
135351CR	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0 ...	14.95	13.49
18139CR	GB117	200 asst. 1/2W resistors (5/10%)	0.2 .....	5.95	5.35
169578CR	GB125	100 asst. values photocells	0.2 ...	12.95	11.49

## Switches, Toy Motors and Fans

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18235CR	GB165	50 assorted switches (toggle, pushbutton, rocker, slide)	0.4 ...	\$8.75	\$7.69
135378CR	GB165LB*	1 lb. (135 pcs) asst. #18235CR switches	1.0 ...	18.95	16.95
18294CR	GB182	5 asst. toy DC motors (1.5-24V)	1.1 .....	5.49	4.95
149649CR	GB193	5 asst. AC/DC fans (photo above)	4.5 .....	8.75	7.69

## Hardware Assortments

• 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic  
• Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
171571CR	GB149*	1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers	1.0 .....	\$5.95	\$5.35	\$4.79
171635CR	GB149LB*	3 lbs. (1400 pcs) asst. types; same as P/N 171571CR (above)	3.0 .....	12.95	11.49	9.95

## Spacers and Standoffs Assortments

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
166481CR	GB440	100 asst. 4-40 spacers/standoffs	0.5 ...	\$6.95	\$6.25	\$5.59
166490CR	GB632	100 asst. 6-32 spacers/standoffs	0.5 .....	6.95	6.25	5.59
55968CR	GB140	100 asst. 4-40, 6-32, 8-32 round/ hex, alum/brass/nylon spacers	0.3 .....	7.95	6.95	6.25
135423CR	GB140LB*	1 lb. (310 pcs) same as P/N 55968CR	1.0 ...	17.95	15.95	13.95

## Schwab's School Selection

Jameco's nine most popular Grab Bags (highlighted on this page) are all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (81701CR photo above) for storage. What's your suggestion?

**Includes:** Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
163213CR	GB197	Schwab's School Selection	3.3 .....	\$39.95	\$34.95
81701CR	CAB20	20-drawer component cabinet	4.7 .....	15.95	13.95

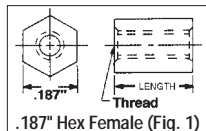
## Surprise Component Grab Bag

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).

Part No.	Cross Ref. No.	Description	1	10	25
135263CR	GB191LB*	3 lbs. electronic components	\$17.95	\$15.95	\$13.95

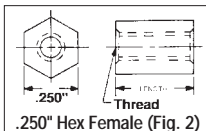
Hex  
.187\"/>

## Aluminum &amp; Brass Threaded Standoffs

† Finish: Iridite (clear)<sup>1</sup> per MIL-C-5541-D;  
bright tin plate<sup>2</sup>; stainless steel<sup>3</sup>Hex  
.250\"/>

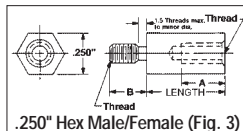
.187\"/&gt;

4-40 Thread (Fig. 1) .187\"/&gt;



.250\"/&gt;

4-40 Thread (Fig. 3) (Thread A: .250\"/&gt;



.250\"/&gt;

4-40 Thread (Fig. 3) (Thread A: .250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing			
			10	100	1000	
175636CR	Brass <sup>2</sup>	.187"	\$ .15	\$ .13	\$ .096	
102795CR	Brass <sup>2</sup>	.240"	.21	.15	.10	
133612CR	Alum <sup>1</sup>	.250"	.20	.12	.09	
133639CR	Alum <sup>1</sup>	.500"	.22	.20	.11	
139791CR	Alum <sup>1</sup>	.562"	.18	.15	.13	
133647CR	Alum <sup>1</sup>	.625"	.14	.13	.11	
133655CR	Alum <sup>1</sup>	.750"	.43	.39	.23	
139184CR	Alum <sup>1</sup>	1.000"	.43	.39	.32	

.250\"/&gt;

4-40 Thread (Fig. 2) .250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
139192CR	Alum <sup>1</sup>	.250"	*	\$ .16	\$ .12	\$ .08
77500CR	Alum <sup>1</sup>	.375"	*	.20	.15	.09
134762CR	Alum <sup>1</sup>	.437"	*	.21	.18	.15
108370CR	Alum <sup>1</sup>	.500"	*	.25	.17	.10
77518CR	Alum <sup>1</sup>	.625"	.42	.35	.19	.14
133604CR	Alum <sup>1</sup>	.750"	.39	.35	.19	.14
139205CR	Alum <sup>1</sup>	1.000"	.49	.35	.25	.15

.250\"/&gt;

6-32 Thread (Fig. 2) .250\"/&gt;

\* Prepackaged: order in  
increments of 10, 100 or 1000

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
77534CR	Alum <sup>1</sup>	.250"	*	\$ .22	\$ .14	\$ .08
133591CR	Alum <sup>1</sup>	.375"	.32	.29	.13	.09
77542CR	Alum <sup>1</sup>	.500"	*	.22	.17	.10
77551CR	Alum <sup>1</sup>	.625"	*	.25	.19	.14
77569CR	Alum <sup>1</sup>	.750"	.31	.28	.21	.13
77577CR	Alum <sup>1</sup>	1.000"	.59	.35	.30	.16
143407CR	Alum <sup>1</sup>	1.500"	.69	.61	.49	.42
143440CR	Alum <sup>1</sup>	1.750"	.79	.59	.48	.41

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
77585CR	Alum <sup>1</sup>	.250"	\$ .41	\$ .37	\$ .17	\$ .11
77593CR	Alum <sup>1</sup>	.375"	.43	.34	.19	.12
111755CR	Alum <sup>1</sup>	.500"	.49	.44	.36	.20
175628CR	Steel <sup>3</sup>	.580"	*	.19	.14	.12
139213CR	Alum <sup>1</sup>	.625"	.43	.39	.35	.31
139221CR	Alum <sup>1</sup>	.750"	.43	.39	.35	.21
139230CR	Alum <sup>1</sup>	1.00"	.49	.44	.36	.30
128565CR	Alum <sup>1</sup>	1.25"	.59	.53	.44	.38
166545CR	Alum <sup>1</sup>	1.50"	.75	.65	.59	.49

.250\"/&gt;

6-32 Thread (Fig. 3) (Thread A: .375\"/&gt;

10 piece minimum

Part Number	Metal†	Hex Length	Pricing		
			10	100	1000
133541CR	Alum <sup>1</sup>	.250"	\$ .39	\$ .35	\$ .21
133567CR	Alum <sup>1</sup>	.375"	.39	.35	.22
77606CR	Alum <sup>1</sup>	.500"	.32	.29	.23
77622CR	Alum <sup>1</sup>	.750"	.39	.35	.28
77649CR	Alum <sup>1</sup>	1.000"	.44	.40	.32
206623CR	Steel <sup>3</sup>	1.250"	.40	.36	.32

## RAF Instrumentation Handles

- 5/8" oval diameter
- 9/32" thick
- 10-32 internal thread size

211158CR:

- Color: black
- Base metal: aluminum

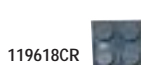
216821CR:

- Color: nickel plate
- Base metal: brass

Part No.	Size (L" x H")	1	10	100
211158CR	3.0 x 1.8	\$2.95	\$2.35	\$1.95
216821CR	3.0 x 1.3	2.95	2.25	1.69

## 3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.



Part No.	Product No.	Type	Fig.	Pack	(W" x H")	1	10	50
119618CR	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	\$ .39	\$ .28	\$ .26
142658CR	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	5.95	5.35	4.79
142771CR	SJ5008BLKC	Black square	2	100	.50 x .12	6.69	4.76	3.40
142682CR	SJ5018BLKC	Black square	3	100	.50 x .23	9.95	8.25	5.39
126981CR	SJ5023BLK4	Black square	4	4	.81 x .30	1.95	1.75	1.59
142666CR	SJ5023BLKC	Black square	4	100	.81 x .30	14.25	9.10	8.69

## PCB Standoff Mounting Hardware

- Snap "on"
- Nylon
- 291987CR: with thread
- 10 piece minimum



Part No.	Mfr. Cross Ref. No.	Dimensions	Holes	10	100	1000
28337CR	PCST	1.2"L x 0.6"W	0.2" .....	\$ .12	\$ .07	\$ .04
129251CR	PCST2	0.9"L x 0.4"Dia.	0.2"/0.3" .....	.18	.11	.075
148056CR	PCST3	0.8"L x 0.5"W	0.1"/0.2" .....	.09	.08	.06
156831CR	KCS10	0.68"L x 0.32"Dia.	0.14" .....	.125	.093	.063
291961CR	ACBS-6	0.75"L x 0.5"W	0.1"/0.2" .....	.11	.058	.028
291987CR	CASE-45-50	0.85"L x 0.3"Dia.	0.2" .....	.13	.092	.058
292015CR	SCB-6	0.7"L x 0.27"Dia.	0.1"/0.2" .....	.17	.15	.14

## SAE Hardware

- Zinc-plated steel



Prepackaged: order in increments of 100 or 1000

Slotted Pan Head Machine Screws				
Part Number	Screw Size	Thread	Length (inches)	100 piece minimum
38172CR	2-56	Std	.250	\$ .025
40951CR	4-40	Std	.250	.019
40969CR	4-40	Std	.375	.017
106809CR	4-40	Std	.500	.018
106542CR	6-32	Std	.250	.018
42446CR	6-32	Std	.375	.019
42438CR	6-32	Std	.500	.019
106796CR	8-32	Std	.500	.04

Hex Nuts				
Part Number	Screw Size	Thread	Dia. (inches)	100 piece minimum
38164CR	2-56	Std	.183	\$ .022
211123CR	4-40	Sm	.184	.023
40942CR	4-40	Std	.243	.025
42420CR	6-32	Std	.306	.023
51553CR	8-32	Std	.334	.02

Flat Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
211131CR	4	.237	\$ .019	\$ .015
106825CR	4	.281	.022	.019
106833CR	6	.373	.022	.019
106841CR	8	.377	.04	.025

Internal Tooth Lock Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
106850CR	4	.258	\$ .018	\$ .015
106868CR	6	.277	.018	.015
106876CR	8	.323	.016	.015

Split Lock Washers				
Part Number	Screw Size	Dia. (inches)	100 piece minimum	
106788CR	2	.161	\$ .024	\$ .016
211140CR	4	.201	.02	.015
40977CR	4	.242	.02	.015
42462CR	6	.240	.011	.009
51609CR	8	.279	.012	.006

## Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth &amp; Lock Washers and Slotted PH Screws

Part No.	Description	Wt. (lbs.)	1	10
108433CR	2300 pcs. hardware kit	7.5	\$55.95	\$50.36
130497CR	Refill for 108433CR	2.7	39.95	35.95





## Color Instrumentation Knobs (1/4" Shaft Diameters)

- JK-907 series: pressure fit type, top set screw; JK-905 series: side set screw
- CR-MS series for knurled shaft



Part No.	Product No.	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
264823CR	CPBTAA191A1S6.4BK	Black/Black	White	.79 x .77	\$.99	\$.93	\$.88
264786CR	CPBTAA191A1S6.4RD	Black/Red	White	.79 x .77	.99	.93	.88
264794CR	CPBTAA191A1S6.4YW	Black/Yellow	White	.79 x .77	.99	.93	.88
264807CR	CPBTAA191A1S6.4BL	Black/Blue	White	.79 x .77	.99	.93	.88
264815CR	CPBTAA191A1S6.4GN	Black/Green	White	.79 x .77	.99	.93	.88
264831CR	CPBTAA191A1S6.4GY	Black/Grey	White	.79 x .77	.99	.93	.88
265156CR	JK-907A-BL	Grey/Blue	Blue	.76 x 1.27	1.99	1.87	1.78
265130CR	JK-907A-RD	Grey/Red	Red	.76 x 1.27	1.99	1.87	1.78
265148CR	JK-907A-YW	Grey/Yellow	Yellow	.76 x 1.27	1.99	1.87	1.78
265181CR	JK-907B-BL	Grey/Blue	Blue	.86 x .94	1.99	1.87	1.78
265172CR	JK-907B-YW	Grey/Yellow	Yellow	.86 x .94	1.99	1.87	1.78
265164CR	JK-907B-RD	Grey/Red	Red	.86 x .94	1.99	1.87	1.78
265199CR	JK-907C-RD	Grey/Red	Red	.72 x .68	1.99	1.87	1.69
265201CR	JK-907C-YW	Grey/Yellow	Yellow	.72 x .68	1.99	1.87	1.78
265210CR	JK-907C-BL	Grey/Blue	Blue	.72 x .68	1.99	1.87	1.78
265050CR	JK-905A	Black/Red	White	.58 x .57	.92	.73	.66
265068CR	JK-905B	Black/Yellow	White	.58 x .57	.92	.73	.66
265076CR	JK-905C	Black/Blue	White	.58 x .57	.92	.73	.66
265084CR	JK-905D	Black/Green	White	.58 x .57	.92	.73	.66
265017CR	JK-904A	Black/Red	White	.47 x .78	.99	.93	.88
265025CR	JK-904B	Black/Yellow	White	.47 x .78	.99	.93	.88
265033CR	JK-904C	Black/Blue	White	.47 x .78	.99	.93	.88
265041CR	JK-904D	Black/Green	White	.47 x .78	.99	.93	.88
265261CR	CR-MS-5C5-T18*	Grey	Grey	.68 x .51	.78	.67	.61
265252CR	CR-MS-4C5-T18*	Grey	Green	.68 x .51	.78	.67	.61
265244CR	CR-MS-3C5-T18*	Grey	Blue	.68 x .51	.78	.67	.61
265236CR	CR-MS-2C5-T18*	Grey	Yellow	.68 x .51	.78	.67	.61
265228CR	CR-MS-1C5-T18*	Grey	Red	.68 x .51	.78	.67	.61

\* For use with 1/4" knurled shaft

## Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

SAVE \$30

Part No.	Description	Wt. (lbs.)	1	10
108433CR	2300 pcs. Hardware kit	7.5	\$55.95	\$50.36
130497CR	Refill for 108433CR (2300 pcs.)	2.7	39.95	35.95



## Black Instrumentation Knobs (1/4" Shaft Diameters)

- Set screw for secure attachment
- RN-112A/113A/114A: Numeric dial type

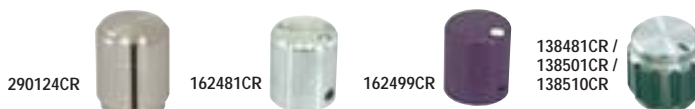


Part No.	Product No.	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
265092CR	JK-906A	Black	White	.72 x 1.39	\$1.09	\$.87	\$.80
265105CR	JK-906B	Black	White	.79 x .95	1.02	.71	.65
265113CR	JK-906C	Black	White	.64 x .82	.83	.62	.57
265121CR	JK-906D	Black	White	.58 x .61	.68	.53	.50
264997CR	JK-902A	Black	White	.69 x 1.31	.74	.57	.53
265009CR	JK-902B	Black	White	.60 x .95	.69	.47	.44
264920CR	JK-901A	Black/Alum	White	.79 x 1.77	1.34	1.16	1.05
264946CR	JK-901B	Black/Alum	White	.64 x 1.29	.90	.71	.65
264954CR	JK-901C	Black/Alum	White	.61 x 1.06	.75	.59	.54
264989CR	JK-901D	Black/Alum	White	.47 x .78	.68	.53	.48
264882CR	RN-112A	Black/Alum	Numeric	.90 x 1.46	.99	.93	.88
264891CR	RN-113A	Black/Alum	Numeric	.70 x 1.15	.99	.93	.88
264911CR	RN-114A	Black/Alum	Numeric	.58 x 1.46	.99	.93	.88
102787CR	JK-903C	Black	White	.54 x 1.25	.64	.41	.39
104176CR	JK-902C	Black	White	.49 x .75	.99	.85	.65
202286CR	CP-Z1-M-S	Black/Alum	White	.60 x .80	.79	.69	.64
136240CR	GKB-214	Black/Alum	White	.52 x .54	.65	.55	.49
138392CR	41108-1	Black/Alum	White	.56 x .85	.79	.59	.54



## Aluminum Instrumentation Knobs (1/8" and 1/4" Shaft Diameters)

- Includes: Set screw for secure attachment
- 290124: Coarse surface for sensitive control; 1/8" shaft diameter



Part No.	Mfr. Ref. No.	Shaft Size	Body Color	Pointer Color	Size (H" x Dia.)	1	10	100
290124CR	42008-1	1/8"	Silver	Silver	.500 x .625	\$1.99	\$1.79	\$1.61
162481CR	K5-1/4S	1/4"	Chrome	Silver	.500 x .560	1.19	1.09	.96
162499CR	K5-1/4B	1/4"	Black	White	.500 x .560	1.55	1.39	1.07
138481CR	KN031	1/4"	Aluminum	Black	.610 x .650	1.49	1.35	1.19
138501CR	KN032	1/4"	Aluminum	Black	.870 x .750	1.95	1.71	1.55
138510CR	KN033	1/4"	Aluminum	Black	1.18 x .870	2.49	2.24	1.95

# DC Brushless Fans

Color Code Legend  
New Sale Qty Save Closeout



163475CR



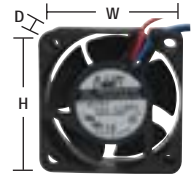
102921CR

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



213891CR



249375CR

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D") See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
163475CR	Nidec	C34427-55APP	5	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	\$4.95	\$4.46	\$3.56	\$2.67
131246CR	Adda	AD0205LX-G50	5	1.00 x 1.00 x 0.40	1.8	Sleeve	100	0.5	UL/CSA/CE	15.6	5.5"	8.49	7.64	7.01	6.38
206156CR	Sunon	KDE0502PFB3-8	5	1.00 x 1.00 x 0.40	1.83	Ball	60	0.3	UL/CSA/TUV/CE	23	5"	11.95	10.76	8.60	6.45
196373CR	Sunon	KD0504PFB2-8	5	1.60 x 1.60 x 0.40	5.5	Ball	90	0.5	UL/CUL	23	12"	8.95	8.09	7.25	6.55
102921CR	Sunon	KD0504PFS2-8	5	1.60 x 1.60 x 0.40	6.3	Sleeve	120	0.6	UL/CUL	24.3	12"	7.95	6.95	6.25	5.59
171678CR	Delta	AFB0405HHD	5	1.60 x 1.60 x 0.80	8.6	Ball	700	2.0	—	36	2.5"	5.49	4.94	3.95	2.96
207061CR	Adda	AD0505MB-G90	5	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	6.55	5.75	4.29
279566CR	Mechatronics	F6025H05B	5	2.36 x 2.36 x 1.00	20	Ball	410	2.05	UL/CUL/TUV	31	6"	8.45	8.05	7.18	6.82
212804CR	Sunon	KDE1202PFB3-8	12	1.00 x 1.00 x 0.40	1.3	Ball	40	0.5	UL/CUL/TUV/CE/DE	26	5.9"	10.95	9.89	8.89	7.99
102912CR	Sunon	KD1202PFB2-8	12	1.00 x 1.00 x 0.40	2.0	Ball	60	0.7	UL/CSA/TUV	30	6"	11.95	10.74	8.94	7.14
212791CR	Sunon	KDE1202PFB1-8	12	1.00 x 1.00 x 0.40	2.4	Ball	80	1.0	UL/CUL/TUV/CE/DE	33	5.9"	10.95	9.86	8.87	7.98
212767CR	Sunon	KDE1203PFB3-8	12	1.18 x 1.18 x 0.40	2.3	Ball	50	0.6	UL/CUL/TUV/CE/DE	18.5	5.9"	9.49	8.54	7.45	6.35
212775CR	Sunon	KDE1203PFB2-8	12	1.18 x 1.18 x 0.40	3.0	Ball	60	0.8	UL/CUL/TUV/CE/DE	25	5.9"	9.69	8.75	7.85	7.05
212783CR	Sunon	KDE1203PFB1-8	12	1.18 x 1.18 x 0.40	3.5	Ball	75	0.9	UL/CUL/TUV/CE/DE	27	5.9"	10.95	8.50	7.85	6.95
212732CR	Sunon	KDE1235PFB3-8	12	1.40 x 1.40 x 0.40	3.2	Ball	50	0.6	UL/CUL/TUV/CE/DE	18	5.9"	11.49	10.34	8.36	6.38
212741CR	Sunon	KDE1235PFB2-8	12	1.40 x 1.40 x 0.40	4.5	Ball	60	0.8	UL/CUL/TUV/CE/DE	21	5.9"	11.95	9.49	8.49	7.65
212759CR	Sunon	KDE1235PFB1-8	12	1.40 x 1.40 x 0.40	5.2	Ball	80	1.0	UL/CUL/TUV/CE/DE	25	5.9"	11.95	10.76	8.60	6.45
207052CR	Adda	AD0412MB-K90	12	1.60 x 1.60 x 0.25	5.5	Ball	60	0.72	UL/CSA/TUV/CE	25	5"	6.95	6.26	5.00	3.75
191476CR	Common Wealth	FP-108HX/DC	12	1.60 x 1.60 x 0.40	4.0	Sleeve	60	0.72	UL/CSA/TUV/CE	25	12"	5.95	5.36	4.49	3.19
210796CR	Sunon	KD1204PFB3H	12	1.60 x 1.60 x 0.40	4.7	Ball	50	0.6	UL/CUL/TUV/CE	24	14"	6.95	6.25	5.59	4.95
279611CR	Toyo	T401012VH	12	1.60 x 1.60 x 0.40	5.8	Ball	90	1.1	UL/CUL/TUV/CE	33.5	12"	7.49	6.74	5.39	4.04
189691CR	Sunon	KD1204PFS2	12	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	7.95	7.19	6.45	5.45
161699CR	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95	6.25	5.59
212716CR	Sunon	KDE1204PFB2-H	12	1.60 x 1.60 x 0.40	6.5	Ball	90	1.1	UL/CUL/TUV/CE/DE	27	12"	6.65	4.95	4.36	3.95
290010CR	Adda	AD0412HB-G70	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	UL/CUL/TUV/CE	25	10" w/ conn.	4.95	4.60	4.14	3.72
213428CR	Adda <sup>1</sup>	AD0412HB-G76	12	1.60 x 1.60 x 0.40	6.7	Ball	100	1.2	CE	30.2	12"/3 leads	7.59	6.83	5.46	4.10
212724CR	Sunon	KDE1204PFB1-H	12	1.60 x 1.60 x 0.40	8.3	Ball	110	1.4	UL/CUL/TUV/CE/DE	34.4	12"	6.65	5.99	5.09	3.81
174131CR	Jamicon	JF0413S1M	12	1.60 x 1.60 x 0.47	3.8	Sleeve	90	1.1	UL/CSA/TUV	29	14"	2.95	2.66	2.12	1.59
213891CR	Adda	AD0412MB-D50	12	1.60 x 1.60 x 0.60	8.1	Ball	100	1.2	UL/CUL/CE	31.8	11.5"	6.99	6.29	5.66	5.10
136178CR	Adda	AD0412MS-C70	12	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	5.49	4.95	3.95	2.95
195899CR	Sunon	KDE1204PKS2	12	1.60 x 1.60 x 0.80	6.5	Sleeve	70	0.9	UL/CSA/TUV	25.5	12"	7.95	7.15	6.45	5.35
279620CR	Toyo	T402012H	12	1.60 x 1.60 x 0.80	6.7	Ball	70	0.84	UL/CUL/TUV/CE	26.2	12"	7.29	6.56	5.25	3.94
195881CR	Common Wealth	FP-108G/DC(S1)	12	1.60 x 1.60 x 0.80	7.6	Ball	160	1.92	UL/CSA/CE	32	12"	3.45	3.14	2.85	2.60
206447CR	Delta	DFB0412H	12	1.60 x 1.60 x 0.80	8.5	Ball	100	1.0	UL/CSA/VDE	32	8"	7.95	7.16	6.44	5.80
249375CR	Adda <sup>2</sup>	AD0412-12HB-C56	12	1.60 x 1.60 x 0.80	9.2	Ball	100	1.1	UL/CUL/TUV/CE	39.3	12"	8.95	8.06	6.44	4.83
206164CR	Sunon	KDE1204PKBX-8	12	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/TUV/CE	29.4	12"	8.95	7.95	6.95	6.95
212679CR	Sunon	KDE1245PFB3-H	12	1.80 x 1.80 x 0.40	6.1	Ball	60	0.7	UL/CUL/TUV/CE/DE	23	12"	4.49	4.04	3.64	3.27
212687CR	Sunon	KDE1245PFB2-H	12	1.80 x 1.80 x 0.40	8.0	Ball	90	1.1	UL/CUL/TUV/CE/DE	29	12"	4.75	4.28	3.85	3.46
212695CR	Sunon	KDE1245PFB1-H	12	1.80 x 1.80 x 0.40	9.5	Ball	110	1.4	UL/CUL/TUV/CE/DE	33.8	12"	4.99	4.49	4.04	3.64
212644CR	Sunon	KDE1205PFB3-HG	12	2.00 x 2.00 x 0.40	8.5	Ball	60	0.7	UL/CUL/TUV/CE/DE	26	12"	6.49	5.84	5.26	4.73
212652CR	Sunon	KDE1205PFB2-HG	12	2.00 x 2.00 x 0.40	10.6	Ball	80	1.0	UL/CUL/TUV/CE/DE	31.5	12"	6.65	4.95	4.36	3.95
297959CR	Delta	EFB0512HA	12	2.00 x 2.00 x 0.40	11.4	Ball	150	1.8	UL/CSA/CE/DE	30	6" w/ conn.	6.29	4.99	4.66	4.43
212661CR	Sunon	KDE1205PFB1-HG	12	2.00 x 2.00 x 0.40	12.5	Ball	110	1.4	UL/CUL/TUV/CE/DE	36	12"	6.65	4.95	4.36	3.95
212628CR	Sunon	KDE1205PHB3-H	12	2.00 x 2.00 x 0.60	10.2	Ball	60	0.7	UL/CUL/TUV/CE/DE	22.5	12"	8.29	7.46	5.97	4.48
206965CR	Adda	AD0512HB-D71	12	2.00 x 2.00 x 0.60	11.7	Ball	100	1.2	UL/CUL/TUV/CE	28.5	5"	3.54	3.22	2.93	2.66
139601CR	Adda	AD0512HS-D71	12	2.00 x 2.00 x 0.60	12	Sleeve	100	1.2	UL/CSA/CE	29	12"	8.95	8.06	6.44	4.83
206172CR	Sunon <sup>3</sup>	KDE1205PHB2-TM	12	2.00 x 2.00 x 0.60	12.7	Ball	140	1.7	UL/CSA/CE	27.8	11"/3 leads	7.95	6.11	5.72	4.29
212636CR	Sunon	KDE1205PHB2-H	12	2.00 x 2.00 x 0.60	13	Ball	80	1.0	UL/CUL/TUV/CE/DE	29.5	12"	8.29	7.46	5.97	4.48
147491CR	Shicoh	0610-12HH	12	2.36 x 2.36 x 0.40	16.2	Ball	150	1.8	—	38	5"	7.95	7.16	6.44	5.79
195944CR	Adda	AD612MS-D71GL	12	2.36 x 2.36 x 0.60	14.2	Sleeve	110	1.32	UL/CSA/TUV/CE	28.8	6"	6.95	6.26	5.00	3.75
249068CR	Jamicon	JF0615B1H	12	2.36 x 2.36 x 0.60	15.74	Ball	170	2.04	UL/CUL/TUV/CE	34	10.5"	8.75	7.89	7.09	6.39
175046CR	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	6.95	6.25	4.95	3.75
144160CR	Adda	AD0612LB-C70GL	12	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	8.49	7.69	6.15	4.65
189595CR	Sunon	KD1206PKS2	12	2.36 x 2.36 x 0.80	16.5	Sleeve	150	1.8	UL/CSA/TUV/CE	31	12"	4.95	4.46	3.56	2.61
185818CR	Cheng	CHA6012DB	12	2.36 x 2.36 x 0.90	20.5	Ball	180	2.5	UL	33	12"	6.95	6.29	5.05	3.79

<sup>1</sup> 213428CR: ATX PC type

<sup>2</sup> 249375CR: Speed sensor

<sup>3</sup> 206172CR: Locked rotor alarm

DC Brushless Fans continued on pages 125 and 126

•Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170



234894CR



102955CR

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
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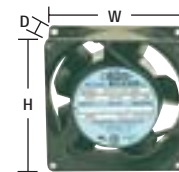
Quantity  
**SAVE**

**SALE**

New Lower Prices



227900CR



102875CR

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D")* <i>See metric below</i>	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
237075CR	Nidec	TA225DC-B33399-55	12	2.36 x 2.36 x 1.00	12	Ball	110	1.3	UL/CSA	17.2	10"	\$5.95	\$5.35	\$4.29	<b>\$3.25</b>
75352CR	Common Wealth	FP108FDC12VS2	12	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	<b>5.79</b>	<b>5.21</b>	<b>4.17</b>	<b>3.13</b>
136143CR	Delta	SB0612M	12	2.36 x 2.36 x 1.00	17.7	Sleeve	110	1.8	UL/CSA/VDE	26.5	5"	5.95	4.95	3.95	<b>2.95</b>
279646CR	Toyo	T602512H	12	2.36 x 2.36 x 1.00	18.1	Ball	140	1.7	UL/CUL/TUV/CE	34	12"	<b>5.89</b>	<b>5.30</b>	<b>4.24</b>	<b>3.18</b>
102947CR	Jamicon	JF0625S1H	12	2.36 x 2.36 x 1.00	20.5	Sleeve	230	2.7	UL/CSA/TUV	30.5	11"	6.95	6.29	5.05	<b>3.79</b>
150421CR	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.29	5.65	5.09
191548CR	Common Wealth	FP108FDC12VS1B	12	2.36 x 2.36 x 1.00	21	Ball	130	1.6	UL/CSA/TUV/CE	30	12"	6.95	6.26	5.00	<b>3.75</b>
195910CR	Sunon	KD1206PTS1	12	2.36 x 2.36 x 1.00	21.7	Sleeve	190	2.3	UL/CSA/TUV	34	12"	6.49	5.84	4.67	<b>3.50</b>
109081CR	Adda	AD0812HS-D71	12	3.15 x 3.15 x 0.60	29	Sleeve	190	2.3	UL/CSA/TUV/CE	31.4	12"	9.95	8.99	8.09	7.25
141920CR	Adda	AD0812HB-C70	12	3.15 x 3.15 x 0.80	27.3	Ball	240	2.9	UL/CSA/CE	34	12"	6.35	5.95	5.75	5.55
16993CR	Various <sup>1*</sup>	FAN7315SL	12	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12**	6.95	6.29	5.65	4.95
75361CR	Various *	FAN6315BL	12	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12**	5.95	5.39	4.35	3.25
234894CR	Adda	AD0812LB-A70GL	12	3.15 x 3.15 x 1.00	27.6	Ball	120	1.44	UL/CSA/TUV/CE	22.5	11.5	8.19	6.39	5.89	5.49
<b>286926CR</b>	Toyo	USTF802512MW	12	3.15 x 3.15 x 1.00	29	Ball	180	2.16	UL/CSA/CE/VDE	24.8	4.5"	6.99	5.09	4.79	4.55
154288CR	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.55	4.09	3.69	3.06
195952CR	Panasonic	FMB-08A12M	12	3.15 x 3.15 x 1.00	30	Sleeve	124	1.5	UL/CSA	28	11"	4.55	4.09	3.29	<b>2.45</b>
123529CR	Adda	AD0812MS-A70GL	12	3.15 x 3.15 x 1.00	32	Sleeve	150	1.8	UL/CSA/TUV	28.3	12"	<b>6.95</b>	<b>6.26</b>	<b>5.63</b>	<b>5.07</b>
265578CR	Yate Loon	D80SH-12	12	3.15 x 3.15 x 1.00	33	Ball	190	2.28	UL/CUL/TUV/CE	35.0	5"	7.29	7.18	7.07	6.96
166959CR	NMB (Smart Fan)†	3110NL-012Q340-00	12	3.15 x 3.15 x 1.00	35	Ball	290	3.5	UL/CSA	35	2"	8.95	8.09	6.49	<b>4.85</b>
191599CR	NMB	3110KL-04W-B50	12	3.15 x 3.15 x 1.00	39	Ball	230	2.7	CSA	34	10"	<b>7.49</b>	<b>6.74</b>	<b>6.07</b>	<b>5.46</b>
185834CR	Panaflo	FBM08A12H	12	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	6.29	5.05	<b>3.79</b>
206181CR	Sunon	KDE1208PTS1-6	12	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	5.95	5.35	4.29	<b>3.25</b>
185826CR	NMB <sup>2</sup>	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 leads	<b>6.95</b>	<b>6.26</b>	<b>5.63</b>	<b>5.07</b>
102955CR	Sunon	KD1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	6.49	5.85	5.29	4.75
249148CR	Sunon	KDE1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	—	2.6	—	33.5	12"	6.49	5.85	5.29	4.75
172460CR	Nidec <sup>3</sup>	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 leads	9.95	8.99	7.19	<b>5.39</b>
189755CR	Cheng	CHA8012DB	12	3.15 x 3.15 x 1.00	44.3	Ball	300	3.6	UL	37	2" w/ conn.	<b>5.49</b>	<b>4.94</b>	<b>3.95</b>	<b>2.96</b>
196015CR	Cheng	CHA9212CB	12	3.63 x 3.63 x 1.00	44.1	Ball	190	2.3	UL/CSA	31	12"	5.25	4.75	3.79	<b>2.85</b>
75441CR	Common Wealth	FP108BDC12VS1	12	3.63 x 3.63 x 1.00	45	Sleeve	320	3.1	UL/CSA/TUV/CE	32	10"	<b>3.19</b>	<b>2.87</b>	<b>2.30</b>	<b>1.72</b>
154641CR	Nidec	TA350DC-M33422-16	12	3.63 x 3.63 x 1.00	48	Ball	290	3.5	UL/CSA	43	12"	7.55	6.79	5.45	4.09
190983CR	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	7.25	6.55	5.89	5.29
116476CR	Jamicon	JF0925S1H	12	3.63 x 3.63 x 1.00	52	Sleeve	350	4.2	UL/CSA/TUV	37	10"	<b>3.99</b>	<b>3.59</b>	<b>2.87</b>	<b>2.15</b>
162739CR	NMB (Smart Fan)†	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 leads	7.19	6.47	5.18	<b>3.88</b>
102963CR	Nidec	TA350DC-M33503-55	12	3.63 x 3.63 x 1.00	56	Ball	400	4.8	UL/CSA	45	8"	7.95	6.95	6.25	5.59
279654CR	Toyo	T922512H	12	3.63 x 3.63 x 1.00	56.4	Ball	280	3.4	UL/CUL/TUV/CE	34.3	12"	7.95	7.15	6.65	6.45
284971CR	Delta	EFB09SH	12	3.63 x 3.63 x 1.00	75.6	Ball	500	6.0	UL/CSA/VDE/CE	47	5"	<b>8.99</b>	<b>8.09</b>	<b>6.47</b>	<b>4.85</b>
213567CR	Nidec <sup>4</sup>	A34124-33	12	3.83 x 3.72 x 1.30	25	Ball	650	7.8	UL/CUL	60	11.5"/3 leads	<b>19.95</b>	<b>17.95</b>	<b>14.36</b>	<b>10.77</b>
<b>285966CR</b>	Delta	AFB1212VHE	12	4.68 x 4.68 x 1.00	30	Ball	900	10.8	UL/CSA/VDE/CE	48	6"	14.95	14.07	13.46	12.56
174140CR	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.29	5.05	<b>3.79</b>
227900CR	Common Wealth	FP-108M-S1-B	12	4.68 x 4.68 x 1.00	80	Ball	330	4.0	UL/CSA/VDE/CE	42	12"	10.95	9.85	8.89	7.99
102875CR	Delta	WFB1212H	12	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	10.95	9.89	8.89	7.45
174924CR	Globe Motors	D47-B10A-04T3-000	12	4.68 x 4.68 x 1.00	90	Ball	740	6.8	UL/CSA	39	Terminals	6.95	6.29	5.05	<b>3.79</b>
163619CR	NMB (Smart Fan)†	4710NL012P535P0	12	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	<b>4.95</b>	<b>4.46</b>	<b>4.01</b>	<b>3.61</b>
159020CR	Sunon	KDE1212PMS1-6A	12	4.68 x 4.68 x 1.50	107	Sleeve	570	6.8	UL/CSA/TUV	41	12"	<b>11.95</b>	<b>10.76</b>	<b>8.60</b>	<b>6.45</b>
94625CR	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	42	12"	11.95	10.79	8.65	<b>6.49</b>
189851CR	Delta	WFB1212HE	12	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	11.95	10.79	9.69	7.99
206201CR	Sunon	KDE2404PKB3	24	1.60 x 1.60 x 0.80	6	Ball	30	0.7	UL/CSA/TUV/CE	24	12"	7.49	6.79	6.09	5.49
100909CR	Sunon	KD2404PKS2	24	1.60 x 1.60 x 0.80	6.5	Sleeve	50	1.2	UL/CSA/TUV/CE	25.5	12"	<b>7.95</b>	<b>7.16</b>	<b>5.72</b>	<b>4.29</b>
140661CR	NMB	2408NL-05W-B60	24	2.36 x 2.36 x 0.80	18.4	Ball	100	2.4	—	31	2"	5.95	5.39	4.34	<b>3.24</b>
174107CR	Jamicon	JF0625S2M	24	2.36 x 2.36 x 1.00	18	Sleeve	130	3.1	UL/TUV	28.5	10"	4.49	4.04	3.23	<b>2.42</b>

<sup>1</sup> 16993CR: Replacement for the PC/XT computer power supply fan

<sup>2</sup> 185826CR: Speed sensor

<sup>3</sup> 172460CR: Locked rotor alarm

<sup>4</sup> 213567CR: Blower type

† Temperature control: P/N 166959CR (40°C); P/N 162739CR (50°C, 3 leads); P/N 163619CR (35°C)

\* Manufacturer & specifications may vary

DC Brushless Fans continued on page 126

• Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170



# DC Brushless Fans (Continued)

Color Code Legend  
New Sale Qty Save Closeout



230699CR



Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



New Lower Prices

SALE

Quantity SAVE



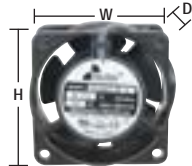
153411CR

Part Number	Manufacturer	Product Number	Voltage (VDC)	Size (W" x H" x D")* See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
189860CR	Jamicon	JF0625B2M	24	2.36 x 2.36 x 1.00	18	Ball	130	3.1	UL/CSA/TUV/CE	28.5	10"	\$8.95	\$8.06	\$6.44	\$4.83
227248CR	Mechatronics	F6025E24B	24	2.36 x 2.36 x 1.00	24	Ball	125	3.0	UL/CUL/TUV	36	12"	7.95	7.15	5.75	4.29
290028CR	Jamicon	JF0825B2M	24	3.15 x 3.15 x 1.00	31.7	Ball	130	3.1	UL/CUL/TUV/CE	29.3	10"	8.25	6.16	5.52	4.99
136160CR	Jamicon	JF0825B2H	24	3.15 x 3.15 x 1.00	39.2	Ball	150	3.6	UL/CSA/TUV	31	12"	9.49	8.55	7.69	6.95
189878CR	Sunon	KD2408PTB1-6A	24	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	36.5	12"	9.95	8.99	7.19	5.39
236099CR	PAPST	8314/19H	24	3.15 x 3.15 x 1.26	32	Ball	245	6.0	UL/CSA/VDE/CE	36	12"/3 leads	9.95	8.96	7.16	5.37
189886CR	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	7.16	5.72	4.19
174094CR	Jamicon	JF0925S2H	24	3.63 x 3.63 x 1.00	52	Sleeve	190	4.6	UL/CUL	37	10"	6.95	6.26	5.00	3.75
206210CR	Sunon	KDE2412PTS3-6A	24	4.68 x 4.68 x 1.00	67	Sleeve	130	3.1	UL/CSA	35	12"	9.95	8.96	7.16	5.37
175281CR	Globe Motors	D47B1A05W2000	24	4.68 x 4.68 x 1.00	70	Ball	160	2.9	UL/CSA/TUV/CE	34	12"	12.95	11.66	10.49	9.44
249287CR	Jamicon	JF1225B2H5	24	4.68 x 4.68 x 1.00	82.97	Ball	500	12	—	41.1	7.5"	12.39	11.15	8.92	6.69
206228CR	Sunon	KDE2412PMS1-6A	24	4.68 x 4.68 x 1.00	107	Sleeve	310	7.4	UL/CSA/TUV/CE	41	11"/3 leads	13.69	12.32	11.09	9.98
100968CR	Sunon	KDE2412PMB3-6A	24	4.68 x 4.68 x 1.50	83	Ball	140	3.4	UL/CSA/TUV/CE	35	12"	12.95	11.69	10.49	8.75
153411CR	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	11.95	10.79	9.69	8.75
166730CR	Mechatronics	A9225H48B	48	3.63 x 3.63 x 1.00	51	Ball	100	4.8	UL/CSA/TUV	36	13"	3.09	2.81	2.56	2.32

1 236099CR/206228CR: Locked rotor alarm

## AC Tube Axial Fans

Call for additional OEM PRICING – we carry major manufacturers.



213866CR



146077CR



- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM

Fan Power Cords on Next Page



75432CR



111894CR

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size (W" x H" x D")* See metric below	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
213866CR	Fulltech	UF60D11H	115	2.36 x 2.36 x 1.18	10.2	Ball	35	4	UL/CUL/VDE/CE	28	12" leads	\$15.95	\$14.39	\$12.95	\$11.65
162704CR	Toyo	USTF60301153W	115	2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	15.49	13.95	12.55	11.29
303491CR	Fulltech	UF0611BTH	115	2.36 x 2.36 x 1.80	10	Ball	38	4	UL/CSA/CE	29	Terminals	15.49	13.95	12.55	11.29
146077CR	Common Wealth	FP108AX-S1-B	115	3.15 x 3.15 x 1.00	23	Ball	140	14	UL/CE	29	12" leads	12.95	11.69	10.49	9.45
300556CR	Fulltech	UF80B11SWH	115	3.15 x 3.15 x 1.00	24	Sleeve	140	14	UL/CUL/TUV/CE	35	12" leads	9.19	8.25	7.98	7.70
300257CR	Fulltech	UF80B11BTH	115	3.15 x 3.15 x 1.00	24	Ball	140	14	UL/CUL/TUV/CE	35	Terminals	10.19	9.18	8.87	8.57
300581CR	Fulltech	UF80A11SWL	115	3.15 x 3.15 x 1.50	25	Sleeve	110	12	UL/CUL/TUV/CE	32	12" leads	9.59	8.64	8.35	8.06
300302CR	Fulltech	UF80A11BWL	115	3.15 x 3.15 x 1.50	25	Ball	110	11	UL/CUL/TUV/CE	32	12" leads	10.56	9.50	9.19	8.87
300329CR	Fulltech	UF80A11BTL	115	3.15 x 3.15 x 1.50	25	Ball	110	12	UL/CUL/TUV/CE	32	Terminals	10.55	9.50	9.19	8.87
300599CR	Fulltech	UF80A11BWH	115	3.15 x 3.15 x 1.50	29	Ball	120	12	UL/CUL/TUV/CE	36	12" leads	11.39	10.26	9.59	9.09
300388CR	Fulltech	UF80A11BTH	115	3.15 x 3.15 x 1.50	30	Ball	120	12	UL/CUL/TUV/CE	36	Terminals	11.39	10.26	9.58	9.10
297932CR	Fulltech	UF80A11SWH	115	3.15 x 3.15 x 1.50	30	Ball	120	12	UL/CUL/TUV/CE	36	12" leads	10.19	9.18	8.99	8.57
303386CR	Fulltech	UF80A11STH	115	3.15 x 3.15 x 1.50	30	Sleeve	120	12	UL/CUL/TUV/CE	36	Terminals	10.19	9.18	8.87	8.57
303394CR	Fulltech	UF80A11STL	115	3.15 x 3.15 x 1.50	25	Sleeve	100	11.5	UL/CUL/TUV/CE	32	Terminals	10.19	9.18	8.87	8.57
75459CR	Sunon	SF11592A-1092HBT	115	3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	Terminals	15.95	14.39	12.95	11.65
75432CR	Sunon	SF11592A-1092HSL	115	3.63 x 3.63 x 1.00	36	Sleeve	130	12	UL/CSA/TUV/CE	39	12" leads	13.95	12.56	10.04	7.53
303466CR	Sunon	SF11592A-1092HBL	115	3.63 x 3.63 x 1.00	37	Ball	110	12	UL/CSA/TUV/CE	40	12" leads	15.95	14.39	12.95	11.65
303407CR	Sunon	SP100A-1123XBL	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	47	12" leads	14.95	13.95	12.95	11.95
303415CR	Common Wealth	FP108-1-S1-B/W	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	12" leads	16.95	15.29	13.75	12.39
303482CR	Fulltech	UF12A11SWL	115	4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CSA/TUV/CE	15	12" leads	12.85	11.54	10.77	10.23
124062CR	Sunon	SP101AT1122HBT	115	4.68 x 4.68 x 1.00	78	Ball	180	18	CSA/TUV/CE	46	Terminals	13.49	10.95	9.89	9.19
303440CR	Fulltech	UF12A11BWL1	115	4.68 x 4.68 x 1.50	64	Ball	80	115	UL/CSA/TUV/CE	37	12" leads	14.95	13.49	12.15	10.95
303360CR	Fulltech	UF12A11BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CUL/TUV/CE	37	Terminals	12.85	11.54	10.76	10.23
300791CR	Fulltech	UF12A11STL	115	4.68 x 4.68 x 1.50	81	Sleeve	150	15	UL/CUL/TUV/CE	38	Terminals	10.95	9.84	9.51	9.19
111894CR	Common Wealth	FP108-1-S1/W	115	4.68 x 4.68 x 1.50	105	Sleeve	180	17	UL/CSA/CE	47	12" leads	13.95	12.59	11.35	10.19
106585CR	Common Wealth	FP108-1-S1/T	115	4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	Terminals	15.95	14.39	12.95	11.65
16934CR	Common Wealth	FP108-1-S1-B	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	Terminals	16.95	15.29	13.75	12.39

• Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170

Call for additional OEM PRICING – we carry major manufacturers.



212599CR



275792CR



- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM



206308CR



209365CR

New Lower Prices

Quantity **SAVE SALE**

Part Number	Manufacturer	Product Number	Voltage (VAC)	Size (W" x H" x D")* <i>See metric below</i>	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing			
												1	10	50	100
212599CR	Fulltech	UF12A11BWH	115	4.68 x 4.68 x 1.50	106	Ball	190	15	UL/CUL/TUV/CE	46	12" leads	\$12.95	\$11.95	\$10.95	\$9.95
275792CR	Sunon	SP101A-123HBT	115	4.68 x 4.68 x 1.50	107	Ball	180	18	UL/CSA/TUV/CE	50	Terminals	12.85	11.19	9.25	6.95
206308CR	Adda	AA1281UB-AT	115	4.68 x 4.68 x 1.50	107	Ball	230	24	CE	48	Terminals	14.95	13.45	10.79	8.09
102883CR	Sunon	SP100A-1123XBT	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CUL/TUV/CE	50	Terminals	14.95	13.95	12.95	11.95
108724CR	Fulltech	UF15AC11BTH	115	6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CUL/TUV/CE	58	Terminals	27.95	27.10	26.29	25.49
212564CR	Fulltech	UF15PC11BTL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	Terminals	22.65	20.58	18.71	17.01
212572CR	Fulltech	UF15PC11BWL	115	6.75 x 5.90 x 2.00	113	Ball	260	30	UL/CUL/TUV/CE	41	12" leads	21.31	19.37	17.61	16.01
212581CR	Fulltech	UF15PC11BWH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	UL/CUL/TUV/CE	58	12" leads	24.95	22.46	20.09	17.73
189683CR	Fulltech	UF15PC11BTH	115	6.75 x 5.90 x 2.00	226	Ball	250	30	CSA	58	Terminals	29.95	26.95	21.59	16.19
174932CR	NMB	3115FS-23T-B10	220	3.15 x 3.15 x 1.50	25	Ball	30	4.6	UL/CSA/TUV/CE	25	Terminals	11.99	10.79	9.71	8.74
100917CR	Sunon	SF23080A/2083HSL	220	3.15 x 3.15 x 1.50	30	Sleeve	60	13.5	UL/CSA/TUV/CE	35	12" leads	10.49	8.39	7.55	5.66
209365CR	Bi-Sonic	4C-230LB	220	4.68 x 4.68 x 1.50	63	Ball	60	9	TUV/CE	34	10" leads	12.95	11.69	10.49	9.45
302244CR	Rotron	28023	220	4.68 x 4.68 x 1.50	88	Ball	130	28.6	UL/CSA	50.7	Terminals	18.95	17.05	15.35	13.81
303458CR	Sunon	DP200A-2123XBL	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	12" leads	15.95	14.39	12.95	11.65
102891CR	Sunon	DP200A-2123XBT	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	Terminals	15.95	14.39	12.95	11.65

♦ Size Conversion: Inches to mm

Inches	0.25	0.40	0.47	0.60	0.80	0.90	1.00	1.18	1.26	1.40	1.50	1.60	1.80	2.00	2.36	2.98	3.15	3.63	3.72	3.83	4.68	5.90	6.75
mm	6	10	12	15	20	23	25	30	32	35	38	40	45	50	60	75	80	92	95	97	120	150	170

## Fan Guards, Filters and Power Cords

### Fan Guards and Filters

Compatible with DC and AC Fans – pages 124 - 127

- All guards and filters fit all fans by matching the size dimension.  
Example: P/N 75408CR fan (3.15") matches P/N 31923CR metal guard (3.15").

Part No.	Description*	1	10	100	250
123502CR	1.60" metal (chrome) guard	\$ .49	\$ .43	\$ .39	\$ .35
163432CR	2.00" metal (chrome) guard	.52	.47	.43	.39
120037CR	2.36" metal (chrome) guard	.79	.71	.57	.43
31923CR	3.15" metal (chrome) guard	.79	.65	.52	.49
123511CR	3.63" metal (chrome) guard	.99	.78	.67	.61
25734CR	4.68" metal (chrome) guard	1.09	.89	.69	.65
138561CR	3.15" plastic guard with mesh	1.39	1.25	1.00	.75
229665CR	3.63" plastic guard with mesh	1.49	1.35	1.25	1.09
196816CR	4.68" plastic guard with mesh	1.95	1.55	1.39	1.25
138579CR	3.15" alum. washable filter	2.95	2.65	2.39	2.15
130104CR	4.68" alum. washable filter	3.49	3.19	2.75	2.49

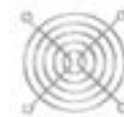
\* Size conversion chart – previous page



123502CR



120037CR



31923CR/123511CR



25734CR

Quantity **SAVE**



138561CR/196816CR



229665CR



138579CR/130104CR

### Fan Power Cords: 24" Straight and Right-Angle

- Cord type: SPT-1 (2) conductor black • Voltage rating: 300V • Temperature range: 60°C • Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564CR	Straight socket cord	24"	\$ .89	\$ .80	\$ .66	\$ .60
104192CR	90° angle socket cord	24"	.85	.67	.59	.56



**SALE**

For Heat Sinks see page 35.



For Heat Sink Fans see page 166.



# 5 to 25-Watt Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Qty Save

ASTRODYNE

## Ultraminiature 5 to 20-Watt Power Supplies

- Working temp.: -10 to 60°C
- UL/CUL/TUV/CE
- High reliability, low-cost
- Free air cooling convection
- Universal AC input/full range
- Short circuit/overload/over-voltage/over-temperature protection
- 100% full burn-in test
- Fixed switching frequency @ 100kHz
- Two year warranty



### 5-Watt OFM-5000 Series

- Size: 2.28"L x 1.77"W x 0.83"H
- Inrush current: 20A@115VAC
- Pin-mount



### 15-Watt OFM-1500 Series

- Size: 2.76"L x 1.89"W x 0.83"H
- Inrush current: 25A@115VAC
- Pin-mount

### 10-Watt OFM-0100 Series

- Size: 2.56"W x 1.77"L x 0.83"H
- Inrush current: 25A@115VAC
- Pin-mount



### 20-Watt OFM-0200 Series

- Size: 3.50"L x 2.00"W x 0.78"H
- Inrush current: 25A@115VAC
- Chassis mount



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Jameco Part No.	Manufacturer Product No.	Output		Load Regulation	Line Regulation	Ripple & Noise (mV p-p)*	Price		
		Voltage@Current (min-max)	Power				1	10	25
300281CR	OFM-5001	+5V@0-1A	5W	±2%	±0.5%	50	\$30.39	\$28.50	\$27.08
300409CR	OFM-5002	+12V@0-0.42A	5W	±1%	±0.3%	150	30.39	28.50	27.08
300417CR	OFM-5003	+15V@0-0.33A	5W	±1%	±0.3%	150	30.39	28.50	27.08
300425CR	OFM-5005	+24V@0-0.23A	5W	±0.5%	±0.2%	240	30.39	28.50	27.08
300433CR	OFM-0101	+5V@0-2A	10W	±2%	±0.5%	50	36.09	34.20	32.49
300441CR	OFM-0102	+12V@0-0.85A	10W	±1%	±0.3%	180	36.09	34.20	32.49
300450CR	OFM-0103	+15V@0-0.67A	10W	±1%	±0.3%	180	36.09	34.20	32.49
300468CR	OFM-0105	+24V@0-0.42A	10W	±0.5%	±0.2%	240	36.09	34.20	32.49
300476CR	OFM-1501	+5V@0-3A	15W	±2%	±0.5%	60	40.85	38.00	36.10
300484CR	OFM-1502	+12V@0-1.25A	15W	±1%	±0.3%	150	40.85	38.00	36.10
300492CR	OFM-1503	+15V@0-1.0A	15W	±1%	±0.3%	150	40.85	38.00	36.10
300505CR	OFM-1505	+24V@0-0.63A	15W	±0.5%	±0.2%	240	40.85	38.00	36.10
300513CR	OFM-0201	+5V@0-4.4A	20W	±2%	±0.5%	50	43.69	40.85	38.81
300521CR	OFM-0202	+12V@0-1.8A	20W	±1%	±0.3%	150	43.69	40.85	38.81
300530CR	OFM-0203	+15V@0-1.4A	20W	±1%	±0.3%	150	43.69	40.85	38.81
300548CR	OFM-0205	+24V@0-0.92A	20W	±0.5%	±0.2%	240	43.69	40.85	38.81

\* Primary Output

Enclosed Power Supplies  
on pages 135-140.

## 15 & 25-Watt Open Frame PSA15 & PSA25 Series: Single & Triple Outputs

- Load regulation: ±2.0%
- Isolation voltage: 3,000 VAC
- Inrush current: 30A @ 120VAC
- Size: 4.33"L x 1.57"W x 0.91"H, except 230535CR 3.6"L x 2.5"W x 1.1"H
- Line regulation: ±1.0%
- Voltage adjustment: 5% (PSA15 only)
- Temperature: 0° to +40°C
- Universal input
- One-year warranty



Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
229041CR	Phihong	PSA15LN3-050	+5V@0-3A	15W	90-264@47-63	50	UL/CUL/TUV/CE	\$17.95	\$16.95	\$16.19
229059CR	Phihong	PSA15LN3-120	+12V@0-1.25A	15W	90-264@47-63	120	UL/CUL/TUV/CE	17.95	16.95	16.19
229067CR	Phihong	PSA15LN3-240	+24V@0-0.63A	15W	90-264@47-63	240	UL/CUL/TUV/CE	17.95	16.95	16.19
230535CR	Phihong	PSA25L-301	+5V@0.2-2A; +12V@0.1-1A; -12V@0-0.3A	25W	90-264@47-63	50	UL/CUL/TUV/CE	23.49	21.15	18.99

\* Primary Output

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Quantity  
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## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
189747CR	Tamura	79642191	+5V@1A; +12V@1A	17W	120/230@50-60	4.7x2.4x1.1	—	50	—	1.0	—	\$8.95	\$7.65	\$5.75
166967CR	Super Mac	U002512010	+5V@2.5A; +12V@1A	24.5W	100-240@50-60	3.7x2.5x1.2	—	50	—	1.0	UL/CSA/TUV	14.29	12.86	11.57

\* Primary Output



## 30-Watt Open Frame, Low Leakage

### MPS-30 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- -10°C to + 50°C working temperature (see www.Jameco.com)
- Load regulation:  $\pm 1.0\%$ , except 220978CR:  $\pm 2.0\%$
- Line regulation:  $\pm 0.5\%$ , except 220978CR & 220986CR:  $\pm 1.0\%$
- Inrush current: 35A@120VAC • Leakage current: 0.3mA@240V
- Three-year warranty • Size: 4.0"L x 2.59"W x 0.98"H
- Mounting holes: 3.74"L x 2.02"W x 0.12"Dia.
- Mating connectors: P/Ns 104723CR & 104432CR, pg 87

The Mean Well MPS-30 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@240VAC. Other features of this open frame power supply are: universal input of 88-264VAC as well as 120-370VDC for battery-supported applications. Protections include short-circuit, overload, and over-voltage. They are UL and TUV approved, and carry a CE mark for use worldwide.



Call for LOWER PRICES on Larger Quantities



- Isolation voltage: 4000VAC
- 2.9 watts/in<sup>2</sup> maximum
- Weight: 0.3 lbs.

## 45 & 65-Watt Open Frame, Low Leakage

### MPS-45 & MPS-65 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- Isolation voltage: 4000VAC
- 2.9 watts/in<sup>2</sup> max.
- Voltage adjustment: 10%
- -10°C to + 60°C working temperature (see www.Jameco.com)
- Leakage current: 0.3mA@240V
- Inrush current: 20A@120VAC
- Line regulation:  $\pm 1.0\%$
- Load regulation:  $\pm 2.0\%$ , except 221031CR, 221049CR, 221057CR, 221129CR, 221137CR, 221145CR:  $\pm 3.0\%$
- Soft-start circuit, limiting AC surge current
- Three-year warranty • Weight: 0.6 lbs.
- Size: MPS-45: 5.0"L x 3.0"W x 1.06"H; MPS-65: 5.0"L x 3.0"W x 1.65"H
- Mounting holes: 4.55"L x 2.55"W x 0.14"Dia.
- Mating connectors: P/Ns 104432CR and 104731CR, pg 87

The MeanWell MPS-45 & MPS-65 medical power supplies are low cost, high reliability open frame power supplies. Other features of these power supplies are: universal input of 88-264VAC, as well as 120-370VDC for battery-applications. Full rated power is available with 18CFM forced air convection applied. Protections include short-circuit, overload, and over-voltage.



## 110-Watt Open Frame, Low Leakage

### NFS110-79xxP Series: Quad Outputs

- 100% full-load burn-in
- 110W with 20 CFM of air
- Leakage current: 0.1mA@240V
- Size: 7.0"L x 4.25"W x 1.8"H
- In-rush current: 17A@120VAC
- Two-year warranty
- Mounting holes: 6.6"L x 3.75"W x 0.156"Dia.
- Mating connectors: P/Ns 104723CR, 104766CR & 104432CR, pg 87
- 0°C to +70°C working temp. (see www.Jameco.com)
- Universal AC input
- 2.1 watts/in<sup>2</sup> maximum
- Voltage adjustment: 3%
- Isolation voltage: 4000VAC
- Line regulation:  $\pm 0.1\%$
- Weight: 1.3 lbs.

The NFS110-79xxP models have proven to be highly reliable and versatile for a wide range of communication and industrial applications, with a very high peak current capability on each output for drive and motor applications. These models have full medical safety approval to EN60601 and UL2601, and meet conducted emissions requirements of EN55022 level A. They are designed for use in low power medical, dental and laboratory applications.



Medical Table-Top Power Supplies & Wall Adapters on Page 149



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

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Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
220978CR	Mean Well	MPS-30-5	+5V@0-5A	25.0W	88-264@47-63	80	UL/CUL/TUV/CE	<del>\$36.95</del>	\$33.95	\$30.56
220986CR	Mean Well	MPS-30-12	+12V@0-2.5A	30.0W	88-264@47-63	120	UL/CUL/TUV/CE	<del>\$36.95</del>	33.95	30.56
220994CR	Mean Well	MPS-30-15	+15V@0-2A	30.0W	88-264@47-63	150	UL/CUL/TUV/CE	<del>\$36.95</del>	33.95	30.56
221006CR	Mean Well	MPS-30-24	+24V@0-1.2A	28.8W	88-264@47-63	240	UL/CUL/TUV/CE	<del>\$36.95</del>	33.95	30.56
221014CR	Mean Well	MPS-30-27	+27V@0-1.1A	29.7W	88-264@47-63	240	UL/CUL/TUV/CE	<del>\$36.95</del>	33.95	30.56
221022CR	Mean Well	MPS-30-48	+48V@0-0.6A	28.8W	88-264@47-63	240	UL/CUL/TUV/CE	<del>\$36.95</del>	33.95	30.56
221031CR	Mean Well	MPS-45-3.3	+3.3V@0-8A	26.4W	90-264@47-440	80	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221049CR	Mean Well	MPS-45-5	+5V@0-8A	40.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221057CR	Mean Well	MPS-45-7.5	+7.5V@0-5.4A	40.5W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221065CR	Mean Well	MPS-45-12	+12V@0-3.7A	44.4W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221073CR	Mean Well	MPS-45-13.5	+13.5V@0-3.3A	44.6W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221081CR	Mean Well	MPS-45-15	+15V@0-3A	45.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221090CR	Mean Well	MPS-45-24	+24V@0-1.9A	45.6W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221102CR	Mean Well	MPS-45-27	+27V@0-1.7A	45.9W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221111CR	Mean Well	MPS-45-48	+48V@0-1A	48.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$37.95</del>	34.95	31.46
221129CR	Mean Well	MPS-65-3.3	+3.3V@0-12A	39.6W	90-264@47-440	80	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221137CR	Mean Well	MPS-65-5	+5V@0-12A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221145CR	Mean Well	MPS-65-7.5	+7.5V@0-8A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221153CR	Mean Well	MPS-65-12	+12V@0-5.2A	62.4W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221161CR	Mean Well	MPS-65-13.5	+13.5V@0-4.7A	63.5W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	33.95	28.86
221170CR	Mean Well	MPS-65-15	+15V@0-4.2A	63.0W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221188CR	Mean Well	MPS-65-24	+24V@0-2.7A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221196CR	Mean Well	MPS-65-27	+27V@0-2.4A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
221209CR	Mean Well	MPS-65-48	+48V@0-1.35A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	<del>\$38.95</del>	35.95	32.36
220222CR	Artesyn	NFS110-7901P	+5.1V@0-8; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A	110W	90-253@47-440	50	UL/CSA/VDE/CE	104.49	94.09	89.19
220214CR	Artesyn	NFS110-7902P	+5.1V@0-8A; +12V@0-4.5A; +24V@0-3.5A; -12V@0-0.5A	110W	90-253@47-440	50	UL/CSA/VDE/CE	<del>\$104.49</del>	98.79	93.85

\* Primary Output



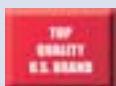
# 25 to 50-Watt Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Qty Save Closeout

## 25-Watt Open Frame

### NLP-25 Series: Single & Triple Outputs

- 100% full-load burn-in
- 3.3 watts/in<sup>2</sup> maximum
- Load regulation:  $\pm 2.0\%$
- 0°C to +50°C working temp. (see www.Jameco.com)
- Size: 4.0"L x 2.07"W x 0.91"H
- Universal AC input
- Line regulation:  $\pm 2.0\%$
- Two-year warranty



## 40-Watt Open Frame

### NFS-40 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 50 watts with 20 CFM of air
- No minimum load required
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 0.2\%$
- Inrush current: 12A@120VAC
- 0° to +70°C working temperature (see www.Jameco.com)
- Voltage adjustment: 5%
- Mating connectors: P/Ns 104432CR & 104731CR, pg 87
- Size: 5.0"L x 3.0"W x 1.2"H
- Two-year warranty



## 25-Watt Open Frame

### PS-25 & PD-25 Series: Single & Dual Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Size: 4.20"L x 2.40"W x 1.10"H
- -10°C to +60°C working temp (see www.Jameco.com)
- Universal AC input
- Inrush current: 40A @ 120VAC
- Two-year warranty



Part Number	Load Reg. (%)	Line Reg. (%)	Part Number	Load Reg. (%)	Line Reg. (%)	Part Number	Load Reg. (%)	Line Reg. (%)
212361CR	2.5	0.5	216768CR	1.0	0.3	212337CR	1.0	0.5
212353CR	2.0	0.5	212345CR	0.5	0.2	212329CR	1.0	0.5
148603CR	1.0	0.3	212311CR	4.0	1.0	148689CR	3.0	0.5



Other Versions Available: Call 800-831-4242

Enclosed Power Supplies on pages 135-140.

**SALE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**Quantity SAVE**

**New Lower Prices**

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
218472CR	Artesyn	NLP25-7605	+5V@0-5A	25.0W	90-264@47-440	50	UL/CSA/VDE/CE	\$36.19	\$32.59	\$29.29
218481CR	Artesyn	NLP25-7612	+12V@0-2.08A	25.0W	90-264@47-440	120	UL/CSA/VDE/CE	36.19	32.59	29.29
218499CR	Artesyn	NLP25-7624	+24V@0-1.04A	25.0W	90-264@47-440	150	UL/CSA/VDE/CE	36.19	32.55	29.29
218501CR	Artesyn	NLP25-7608	+5V@0.2-2A; +12V@0.1-0.8A; -12V@0-0.1A	20.8W	90-264@47-440	50	UL/CSA/VDE/CE	36.19	32.59	29.29
212361CR	Mean Well	PS-25-3.3	+3.3V@0-5A	16.5W	85-264@47-63	80	UL/CUL/TUV/CE	17.95	16.95	16.19
212353CR	Mean Well	PS-25-5	+5V@0-5A	25.0W	85-264@47-63	80	UL/CUL/TUV/CE	17.95	16.95	16.19
148603CR	Mean Well	PS-25-12	+12V@0-2.1A	25.2W	85-264@47-63	100	UL/CUL/TUV/CE	18.95	17.95	17.19
216768CR	Mean Well	PS-25-15	+15V@0-1.7A	25.5W	85-264@47-63	100	UL/CUL/TUV/CE	\$17.95	16.95	16.10
212345CR	Mean Well	PS-25-24	+24V@0-1A	24.0W	85-264@47-63	240	UL/CUL/TUV/CE	18.95	17.95	17.19
212311CR	Mean Well	PD-2505	+5V@0.1-3A; -5V@0.1-2.5A	25.0W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	18.95	17.95
212337CR	Mean Well	PD-25A	+5V@0.2-2.5A; +12V@0.1-1.5A	25.0W	85-264@47-63	50	UL/CUL/TUV/CE	18.95	17.95	17.15
212329CR	Mean Well	PD-25B	+5V@0.2-2A; +24V@0.1-1A	25.2W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	18.95	17.95
148689CR	Mean Well	PD-2512	+12V@0.1-1.2A; -12V@0.1-1A	24.0W	85-264@47-63	50	UL/CUL/TUV/CE	19.95	18.95	17.95
218510CR	Artesyn	NFS40-7605	+5.1V@0-6A	30.6W	85-264@47-440	100	UL/CSA/VDE/CE	\$46.39	40.12	36.47
218528CR	Artesyn	NFS40-7612	+12V@0-3.3A	39.6W	85-264@47-440	120	UL/CSA/VDE/CE	\$46.39	40.12	36.47
218536CR	Artesyn	NFS40-7624	+24V@0-1.6A	38.4W	85-264@47-440	240	UL/CSA/VDE/CE	\$46.39	40.12	36.47
190086CR	Artesyn	NFS40-7608	+5V@0-3A; +12V@0-2A; -12V@0-0.35A	43.2W	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75	37.55
218552CR	Artesyn	NFS40-7610	+5V@0-3A; +15V@0-2A; -15V@0-0.35A	50.2W	85-264@47-440	50	UL/CSA/VDE/CE	46.39	41.75	37.55

\* Primary Output

## Special Offers = Less From Your Coffers!

To us engineers,  $P=I^2R$ . To the owners Profit=Revenue-Expenses. Ownership may not entirely understand our equation, but there's no reason for us to ignore ownership's! When selecting power supplies, there are many ways to save big money. Of course buying from this catalog is one of them! But there are strategies that can help you save much more without a lot of effort. Interested in saving 70% or more off market price? Check out the "Special Offers at Great Savings" on pages 128-145. Our expert buyers found these exceptional one-time buys from major power supply manufacturers, and they're passing the savings directly to you! Just look at the manufacturers in the list and stock up now!



**Practical Practices**  
Money Saving Tips for the Engineer

**SALE**

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
210841CR	Power-One	MAP42-1005	+5V@0-8A	40.0W	120-240@50-60	5.0x3.0x1.3	4.6x2.6x0.16	50	1.0	0.2	UL/CSA/TUV/CE	\$19.95	\$16.96	\$12.72
204548CR	IPD Power	SRW-45-3102	+5V@2.5A; +14.5V@2A; -5.2V@3A	45.0W	85-264@47-63	5.0x3.0x1.2	4.6x2.6x0.16	—	0.5	—	—	\$9.95	8.15	7.42
204530CR	IPD Power	SRW-45-4008	+3.3V@5A; +3.3V@3A; +5V@3A; +12V@0.7A	45.0W	85-264@47-63	5.0x3.0x1.2	4.6x2.6x0.16	—	0.5	—	UL/CUL/TUV/CE	10.85	9.83	8.94
168225CR	Converter Concepts	STRC0006	+5V@2.7A; +12V@1.2A; +35V@.35A; -5V@.18A	30.0W	85-135@57-63	9.0x2.0x1.6	—	—	—	—	UL	5.95	5.35	4.79

\* Primary Output



# 45 to 65-Watt Open-Frame Switching AC-to-DC Power Supplies

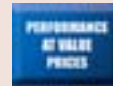
## 45-Watt Open Frame

### PSA45 Series: Single, Triple & Quad Outputs

- Load regulation:  $\pm 2.0\%$
- Inrush current: 20A @ 120VAC
- Size: 5.0"L x 3.0"W x 1.2"H
- Line regulation:  $\pm 2.0\%$
- Temperature: 0° to +50°C
- Weight: 0.9 lbs.



Call for LOWER  
PRICES on Larger  
Quantities



- Universal input
- One-year warranty



## 45-Watt Open Frame

### PS-45, PD-45 & PT-45 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Line regulation:  $\pm 1.0\%$
- Size: 5.0"L x 3.0"W x 1.06"H
- Universal AC input
- Voltage adjustment: 10%
- Load regulation:  $\pm 3.0\%$  (except 213727CR/213719CR/213701CR:  $\pm 2.0\%$ )
- -10°C to +60°C working temperature (see www.Jameco.com)
- Two-year warranty
- Inrush current: 20A@120VAC



Quantity

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New Lower Prices



Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
229075CR	Phihong	PSA45-050	+5V@0-8A	40.0W	90-264@47-63	50	UL/CSA/TUV/CE	\$29.95	\$26.95	\$24.25
229091CR	Phihong	PSA45-120	+12V@0-4A	48.0W	90-264@47-63	120	UL/CSA/TUV/CE	29.95	26.95	24.25
229112CR	Phihong	PSA45-240	+24V@0-2A	48.0W	90-264@47-63	240	UL/CSA/TUV/CE	29.95	26.95	24.25
229121CR	Phihong	PSA4531	+5V@0-4A; +12V@0-1.5A; -12V@0-0.5A	44.0W	90-264@47-63	50	UL/CSA/TUV/CE	31.95	28.79	25.89
229139CR	Phihong	PSA4534	+5V@0-4A; +15V@0-1.2A; -15V@0-0.5A	45.5W	90-264@47-63	50	UL/CSA/TUV/CE	31.95	28.79	25.89
229147CR	Phihong	PSA4541	+5V@0-3A; +12V@0-2A; -5V@0-0.5A; -12V@0-0.5A	47.5W	90-264@47-63	50	UL/CSA/TUV/CE	32.95	29.65	26.69
217331CR	Mean Well	PS45-5	+5V@0-8A	40.0W	90-264@47-440	100	UL/CUL/TUV/CE	\$27.95 22.95	19.51	14.63
217327CR	Mean Well	PS45-12	+12V@0-3.7A	44.4W	90-264@47-440	100	UL/CUL/TUV/CE	27.95	21.99	19.85
217319CR	Mean Well	PS45-24	+24V@0-1.9A	45.6W	90-264@47-440	100	UL/CUL/TUV/CE	27.95	21.99	19.85
213701CR	Mean Well	PS45-48	+48V@0-1A	48.0W	90-264@47-440	100	UL/CUL/TUV/CE	\$24.95 21.95	19.76	17.78
194861CR	Mean Well	PD45A	+5V@0.4-3.2A; +12V@0.2-2	40.0W	90-264@47-440	50	UL/CUL/TUV/CE	24.95	22.46	20.21
194870CR	Mean Well	PD45B	+5V@0.4-3.2A; +24V@0.2-1.2A	44.8W	90-264@47-440	50	UL/CUL/TUV/CE	24.95	21.21	15.91
88401CR	Mean Well	PT45B	+5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A	45.0W	90-264@47-440	50	UL/CUL/TUV/CE	29.95	23.09	20.89

## 50-Watt Open Frame

### LPS-50 Series: Single Output

- 100% full burn-in
- Short circuit, overload, over-voltage protection
- LED power indicator
- Inrush current: 25A@115VAC
- Built-in remote ON-OFF
- Universal AC input
- Voltage adjustment: 10%
- Line regulation:  $\pm 1.0\%$
- Weight: 0.5 lbs.
- Power sensitivity: 3.32 watts/in<sup>3</sup>
- Input voltage: 90-264VAC@47-63Hz, 127-370VDC
- Load regulation:  $\pm 2.0\%$  (LPS-50-12);  $\pm 1.0\%$  (LPS-50-24)
- Working temperature: -20 to +70°C
- Size: 7.7"L x 2.2"W x 0.9"H
- Two-year warranty

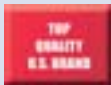
Enclosed Power Supplies  
on pages 135-140.



## 65-Watt Open Frame

### NLP65-76 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 75 watts with 20 CFM of air
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 2.0\%$
- Inrush current: 17A@120VAC
- Two-year warranty
- Size: 5.0"L x 3.0"W x 1.26"H
- Weight: 0.6 lbs.
- 0° to +70°C working temperature (see www.Jameco.com)



## 65-Watt Open Frame

### PS-65, PD-65 & PT-65 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- Voltage adjustment: 10%
- 105°C output capacitor
- Line & load regulation:  $\pm 1.0$  to  $\pm 4.0\%$  (see www.Jameco.com)
- -10°C to +60°C working temperature (see www.Jameco.com)
- Inrush current: 20A@120VAC
- Two-year warranty
- Size: 5.0"L x 3.0"W x 1.65"H
- Weight: 0.6 lbs
- Universal AC input



Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
252401CR	Mean Well	LPS-50-12	+12V@0-4.2A	50.4W	90-264@47-63	80	UL/CUL/TUV/CE	\$28.95	\$23.65	\$20.95
252620CR	Mean Well	LPS-50-24	+24V@0-2.1A	50.4W	90-264@47-63	80	UL/CUL/TUV/CE	28.95	23.65	20.95
218561CR	Artesyn	NLP65-7605	+5V@0-13A	65.0W	85-264@47-63	50	UL/CUL/CSA/DE/CE	\$61.19 52.97	48.16	43.78
218579CR	Artesyn	NLP65-7612	+12V@0-5.4A	64.8W	85-264@47-63	120	UL/CUL/CSA/DE/CE	61.19	55.09	49.55
218587CR	Artesyn	NLP65-7608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	50	UL/CUL/CSA/DE/CE	61.19	55.09	49.55
201937CR	Mean Well	PS-65-5	+5V@0-12A	60.0W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
148638CR	Mean Well	PS-65-12	+12V@0-5.2A	62.4W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
216750CR	Mean Well	PS-65-15	+15V@0-4.2A	63.0W	90-264@47-440	100	UL/CUL/TUV/CE	\$29.95 24.95	21.21	15.91
148646CR	Mean Well	PS-65-24	+24V@0-2.7A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
201945CR	Mean Well	PS-65-27	+27V@0-2.4A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
201953CR	Mean Well	PS-65-48	+48V@0-1.35A	64.8W	90-264@47-440	100	UL/CUL/TUV/CE	29.95	25.29	21.99
194888CR	Mean Well	PD65A	+5V@0.4-7A; +12V@0.2-3.2A	61.1W	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39	23.09
194896CR	Mean Well	PD65B	+5V@0.4-3.5A; +24V@0.2-2A	65.5W	90-264@47-440	50	UL/CUL/TUV/CE	34.95	26.39	23.09
216733CR	Mean Well	PT-65B	+5V@0.4-5.5A; +12V@0.2-2.5A; -12V@0-0.5A	63.5W	90-264@47-440	50	UL/CUL/TUV/CE	36.95	28.59	25.29
216725CR	Mean Well	PT-65C	+5V@0.4-5.5A; +15V@0.2-2A; -15V@0-0.5A	65.0W	90-264@47-440	50	UL/CUL/TUV/CE	36.95	28.59	25.29

\* Primary Output



# 65 to 100W Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Qty Save Closeout

## 65-Watt Open Frame with Power Factor Correction

### NLP65-96 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- No minimum load required
- 75 watts with 20 CFM of air
- Load regulation:  $\pm 2.0\%$
- Line regulation:  $\pm 2.0\%$
- Inrush current: 17A@120VAC
- 0° to +70°C working temperature (see www.Jameco.com)
- Two-year warranty
- Size: 5.0"L x 3.0"W x 1.26"H



## 75-Watt Open Frame

### LPS-75 Series: Single Outputs

- 100% full-load burn-in
- Universal AC input
- Built-in remote ON/OFF
- Line regulation:  $\pm 1.0\%$
- Load regulation: (244718CR)  $\pm 1.0\%$ ; (244726CR)  $\pm 2.0\%$
- Inrush current: 24A@120VAC
- Voltage adjustment: 10%
- -20°C to +60°C working temperature (see www.Jameco.com)
- Two-year warranty
- Size: 8.74"L x 2.16"W x 1.18"H

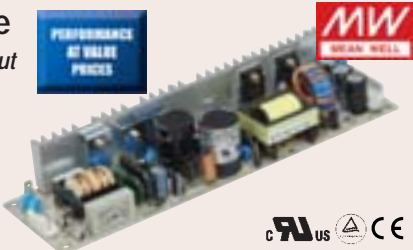
Call for LOWER PRICES on Larger Quantities



## 100-Watt Open Frame

### LPS-100 Series: Single Output

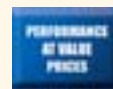
- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 105°C output capacitor
- Load regulation:  $\pm 1.5\%$ , except 173462CR/216709CR:  $\pm 0.5\%$
- Line regulation:  $\pm 0.5\%$
- Inrush current: 30A@120VAC
- Voltage adjustment: 10%
- Weight: 0.8 lbs.
- -10°C to +60°C working temperature (see www.Jameco.com)



## 100-Watt Open Frame

### PQ-100 Series: Quad Outputs

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- Load regulation: 217306CR:  $\pm 2.0\%$
- Line regulation:  $\pm 1.0\%$
- Inrush current: 50A@120VAC
- Voltage adjustment: 10%
- Two-year warranty
- Size: 7.0"L x 4.25"W x 1.88"H
- -10°C to +60°C working temperature (see www.Jameco.com)



Enclosed Power Supplies on pages 135-140.

Quantity SAVE

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

SALE

New Lower Prices

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
218595CR	Artesyn	NLP65-9612	+12V@0-5.4A	64.8W	85-264@47-63	120	UL/CUL/CSA/VDE/CE	\$71.39	\$64.25	\$57.85
218608CR	Artesyn	NLP65-9624	+24V@0-2.7A	64.8W	85-264@47-63	240	UL/CUL/CSA/VDE/CE	61.80	56.18	51.08
218616CR	Artesyn	NLP65-9608	+5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A	75.3W	85-264@47-63	50	UL/CUL/CSA/VDE/CE	71.39	64.25	57.85
244718CR	Mean Well	LPS-75-12	+12V@0-6.8A	74.4W	90-264@47-63	100	UL/CUL/TUV/CE	38.95	35.59	31.99
244726CR	Mean Well	LPS-75-24	+24V@0-3.5A	76.8W	90-264@47-63	120	UL/CUL/TUV/CE	38.95	35.59	31.99
213591CR	Mean Well	LPS100-5	+5V@0-20A	100.0W	88-264@47-63	100	UL/CUL/TUV/CE	35.69	32.44	29.49
173471CR	Mean Well	LPS100-12	+12V@0-8.4A	100.8W	88-264@47-63	100	UL/CUL/TUV/CE	52.95	48.39	42.89
216717CR	Mean Well	LPS100-15	+15V@0-6.7A	100.5W	88-264@47-63	100	UL/CUL/TUV/CE	34.49	31.36	28.51
173462CR	Mean Well	LPS100-24	+24V@0-4.2A	100.8W	88-264@47-63	150	UL/CUL/TUV/CE	52.95	48.39	42.89
216709CR	Mean Well	LPS100-48	+48V@0-2.1A	100.8W	88-264@47-63	200	UL/CUL/TUV/CE	52.95	48.39	42.89
217306CR	Mean Well	PQ-100B	+5V@2-10A; +12V@0.5-3.5A; -5V@0-0.5A; -12V@0-0.5A	100.5W	100-264@47-63	80	UL/CUL/TUV/CE	46.29	41.64	37.48

\* Primary Output

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	25
169068CR	Autec	UPS65-1051	+5V@0.2-13A	65.0W	115/230@50-60	6.0x3.5x1.5	4.8x3.2x0.16	50	1.0	0.5	UL/CSA/VDE	\$11.95	\$10.16	\$7.62
190676CR	Astec	LPS112	+5V@0-16A	80.0W	100-250@50-60	7.0x4.0x1.7	6.5x3.5x0.16	50	—	—	UL/CSA/VDE/CE	6.95	6.26	5.63
237024CR	Lite-On	PA-1101-1	+12V@2-8.5A	102.0W	85-264@47-63	6.0x4.0x1.3	—	1200	10.0	1.0	UL/CUL/TUV/CE	39.95	33.95	25.49
203326CR	EOS	VLT100-1004†	+48V@0.2-2.1A	100.0W	100-240@50-60	5.0x3.0x1.0	4.6x2.6x0.16	480	3.0	0.3	UL/CUL/VDE/CE	27.95	23.75	17.85
171731CR	Delta	DPS-60MPB	+3.3V@0.8-8A; +5V@1-9A;	65.0W	90-270@47-63	5.8x3.3x1.4	—	50	2.0	2.0	UL/CUL/TUV	6.95	5.89	4.45
196824CR	Encad	U006612010	+5.2V@3A; +24V@2A	65.0W	90-250@50-60	6.3x3.9x1.5	—	—	—	—	UL/CUL/TUV	15.95	14.36	12.92
235088CR	Artesyn	NLP65-7629	+5V@0-7A; +12V@0-2.5A	65.0W	85-264@47-63	5.0x3.0x1.3	4.6x2.6x0.16	50	2.0	2.0	UL/CUL/CSA/CE	51.69	46.36	43.67
196251CR	Lambda Power	PW-G-00790	+3.3V@15A; +5V@7A; +12V@0.8A	85.0W	100-240@50-60	8.0x3.5x1.3	—	—	—	—	UL/CSA/TUV/CE	3.38	3.08	2.80
226211CR	Philhong	PSA-60-302	+5V@6A; +12V@1.2A; -12V@1.2A	60.0W	100-240@50-60	5.0x3.0x1.6	4.5x2.5x0.15	50	2.0	2.0	UL/CSA/VDE	29.95	25.46	19.09
215706CR	Mean Well	PT-65D	+5V@0.5-5A; +12V@0.2-4A; +24V@0.2-1.3A	65.0W	90-264@47-440	5.0x3.0x1.5	4.6x2.6x0.15	50	2.0	1.0	UL/CUL/TUV/CE	24.95	22.45	20.19
229850CR	IPD Power	SRW-65-3003	+5V@5A; +15V@3.5A; -15V@1A	65.0W	85-264@47-63	6.0x4.0x1.1	5.7x3.5x0.15	50	1.0	—	UL/CUL/TUV/CE	22.95	20.69	18.59
202876CR	Power-One	MAP80-4003	+5V@14A; +15V@3.5A; -5V@1A; -15V@1A	80.0W	100/230@47-63	7.2x4.3x1.8	6.7x3.2x0.17	50	1.0	0.2	UL/CSA/TUV/CE	22.95	22.01	21.08

\* Primary Output

† Power Factor Correction

Don't worry about backorders. Over 99% of our products are in stock! Just place your order by 6PM EST for same business day shipment.

## 100-Watt Open Frame With Power Factor Correction

### LPP-100 Series: Single Output

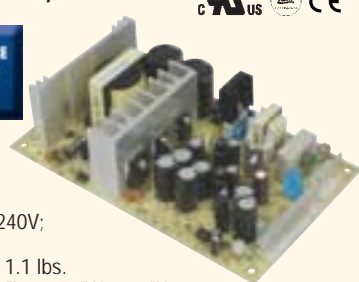
- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 4.4 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Power Factor Correction
- Load regulation: ±0.5%
- Line regulation: ±0.5%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 10%
- Weight: 0.8 lbs.
- Mounting holes: 8.34"L x 2.04"W x 0.13"Dia.
- Mating connectors: P/Ns 215950CR & 215976CR, pg 87
- -10°C to +60°C working temperature (see www.Jameco.com)



## 100-Watt Open Frame with Power Factor Correction

### PPQ-1003 & PPQ-100 Series: Quad Outputs

- 100% full-load burn-in
- Auto-switch AC input
- 2.3 watts/in<sup>3</sup> maximum
- Power Factor Correction
- 105°C output capacitor
- Load regulation: ±2.0%
- Line regulation: ±1.0%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: PPQ-1003: 1.0mA@240V; PPQ-100: 3.5mA@240V
- Voltage adjustment: 10%
- Three-year warranty
- Mounting holes: 6.5"L x 3.75"W x 0.16"Dia.
- Mating connectors: PPQ1003-P/Ns 104766CR & two 104432CR, pg 87; PPQ100-P/Ns 104715CR & two 104723CR, pg 87;
- -10°C to +60°C working temperature (see www.Jameco.com)



## 110-Watt Open Frame

### NFS110-76 Series: Single & Quad Outputs

- 100% full-load burn-in
- Universal AC input
- 110W with 20 CFM of air
- 2.8 watts/in<sup>3</sup> maximum
- Load regulation: ±2.0%
- Line regulation: ±0.1%
- Inrush current: 35A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 0.2mA@240V
- Voltage adjustment: 3%
- Weight: 1.3 lbs.
- Mounting holes: 6.6"L x 3.75"W x 0.16"Dia.
- Mating connectors: P/Ns 104723CR, 104766CR & 104432CR, pg 87
- 0°C to +70°C working temp. (see www.Jameco.com)



- Two-year warranty
- Size: 7.0"L x 4.25"W x 1.8"H

## 110-Watt Open Frame With Power Factor Correction

### NLP110 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 6 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Load regulation: ±2.0%
- Line regulation: ±2.0%
- Inrush current: 18A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 3%
- Two-year warranty
- Size: 6.5"L x 3.0"W x 1.26"H
- Mating connectors: P/Ns 104432CR & 2 ea. 104731CR, pg 87
- 0°C to +70°C working temp. (see www.Jameco.com)



- Leakage current: 0.45mA@240V
- 110W with 20 CFM of air
- Weight: 0.6 lbs.
- Mounting holes: 6.05"L x 2.55"W

For Complete Specifications visit  
[www.Jameco.com](http://www.Jameco.com).

Enclosed Power Supplies  
on pages 135-140.

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price			
			Voltage@Current (min-max)	Power				1	10	25	
216696CR	Mean Well	LPP-100-5	+5V@0-20A	100.0W	85-264@47-63	100	UL/CUL/TUV/CE	\$69.95	\$47.19	\$42.90	\$39.00
216688CR	Mean Well	LPP-100-12	+12V@0-8.5A	102.0W	85-264@47-63	100	UL/CUL/TUV/CE	\$57.39	\$51.65	\$46.49	
216670CR	Mean Well	LPP-100-15	+15V@0-6.7A	100.5W	85-264@47-63	100	UL/CUL/TUV/CE	\$59.95	\$53.96	\$48.56	
204610CR	Mean Well	LPP-100-24	+24V@0-4.2A	100.8W	85-264@47-63	150	UL/CUL/TUV/CE	\$64.95	\$55.21	\$41.41	
216653CR	Mean Well	LPP-100-48	+48V@0-2.1A	100.8W	85-264@47-63	250	UL/CUL/TUV/CE	\$69.95	\$45.86	\$41.69	\$37.90
213815CR	Mean Well	PPQ-1003B	+3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; -12V@0-0.3A	110.6W	90-264@47-63	100	UL/CUL/TUV/CE	\$57.99	\$49.69	\$45.15	\$41.05
213807CR	Mean Well	PPQ-1003D	+3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; +24V@0-0.3A	114.2W	90-264@47-63	100	UL/CUL/TUV/CE	\$57.99	\$49.95	\$45.39	\$41.27
217277CR	Mean Well	PPQ-100B	+5V@2-10A; +12V@0.3-3.4A; -12V@0-0.6A; -5V@0-0.6A	101.0W	90-264@47-63	100	UL/CUL/TUV/CE	\$63.49	\$57.13	\$51.41	
218982CR	Artesyn	NFS110-7612	+12V@0-7A	84.0W	85-264@47-440	120	UL/CUL/CSA/VDE/CE	\$101.15	\$93.97	\$85.43	\$77.66
218974CR	Artesyn	NFS110-7624	+24V@0-3.5A	84.0W	85-264@47-440	240	UL/CUL/CSA/VDE/CE	\$101.15	\$93.97	\$85.43	\$77.66
218966CR	Artesyn	NFS110-7602P	+5.1V@0-8A; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A	103.3W	85-264@47-440	50	UL/CUL/CSA/VDE/CE	\$101.15	\$90.99	\$86.29	
220231CR	Artesyn	NFS110-7604	+5.1V@0-8A; +15V@0-4A; -5V@0-0.5A; -15V@0-0.5A	110.6W	85-264@47-440	50	UL/CUL/CSA/VDE/CE	\$101.15	\$93.97	\$85.43	\$77.66
218915CR	Artesyn	NLP110-9605	+5V@0.5-15A	75.0W	90-264@47-63	50	UL/CUL/CSA/VDE	\$101.99	\$73.10	\$66.46	\$60.41
218923CR	Artesyn	NLP110-9612	+12V@0.3-6.4A	76.8W	90-264@47-63	120	UL/CUL/CSA/VDE	\$101.99	\$80.36	\$73.05	\$66.41
218931CR	Artesyn	NLP110-9624	+24V@0.2-3.2A	76.8W	90-264@47-63	240	UL/CUL/CSA/VDE	\$101.99	\$80.68	\$73.34	\$66.67
218940CR	Artesyn	NLP110-9693	+3.3V@0.2-13A; +5V@0.5-13A; +12V@0-0.65A	110.0W	90-264@47-63	50	UL/CUL/CSA/VDE	\$101.99	\$80.68	\$73.34	\$66.67
218958CR	Artesyn	NLP110-9608	+5V@0.2-13A; +12V@0.2-6.5A; -12V@0-0.65A	110.0W	90-264@47-63	120	UL/CUL/CSA/VDE	\$101.99	\$91.79	\$82.59	

\* Primary Output

## Corporate Customers

Even lower OEM pricing for larger orders! Call 1-800-831-4242 for details today.

# 125 to 350-Watt Open-Frame Switching AC-to-DC Power

Color Code Legend  
New Sale Qty. Save Pull Closeout

## 125-Watt Open Frame With Power Factor Correction

- 100% full-load burn-in
- Line regulation:  $\pm 0.5\%$
- Inrush current: 40A@230VAC (max.)
- Universal AC input/full range
- Leakage current:  $< 2\text{mA}@240\text{V}$
- Size: 5.0"L x 2.4"W x 1.4"H

### PPS-125 Series: Single Output

- Load regulation:  $\pm 1.0\%$
- -40° to +85°C working temperature (see [www.Jameco.com](http://www.Jameco.com))

### PPT-125 Series: Triple Output

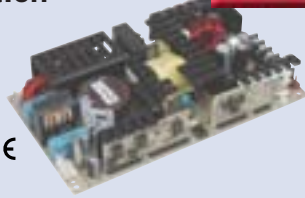
- Load regulation:  $\pm 3.0\%$
- -20° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))



## 150-Watt Open Frame With Power Factor Correction

### NLP150 Series: Single & Quad Output

- Parallel operation (current sharing)
- Universal AC input
- 100% full-load burn-in
- Power Factor Correction
- Line regulation:  $\pm 2.0\%$
- Load regulation:  $\pm 2.0\%$
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Mating connectors: P/N 104432CR, pg 87 & 103587CR, pg 99
- 0° to +70°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 6.8"L x 3.8"W x 1.26"H
- Leakage current: 1mA@240V
- Two-year warranty



## 150-Watt Open Frame With Power Factor Correction

### LPP-150 Series: Single Output

- Power Factor Correction
- 100% full-load burn-in
- Leakage current: 3.5mA@240V
- Voltage adjustment: 10%
- Line regulation:  $\pm 0.5\%$
- Load regulation: 213698CR & 213680CR:  $\pm 1.0\%$ ; 213671CR & 216645CR:  $\pm 0.5\%$
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- 105°C output capacitor
- Auto-switch AC input
- Mating connectors: P/N 215950CR & 215968CR, pg 87
- -10°C to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 8.74"L x 2.95"W x 1.61"H
- Three-year warranty



Other Versions Available: Call 800-831-4242

Enclosed Power Supplies on pages 135-140.

SALE

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

New Lower Prices

Jameco Part No.	Manufacturer	Manufacturer Product Number	Output		Input (VAC @ Hz)	Ripple & Noise (mV p-p)*	Certification	Price		
			Voltage@Current (min-max)	Power				1	10	25
301428CR	Mean Well	PPS-125-24	+24V@0-5.2A	124.8W	90-264@47-63	150	UL/CUL/TUV/CE	\$93.99	\$79.84	\$74.45
301452CR	Mean Well	PPS-125-27	+27V@0-4.6A	124.2W	90-264@47-63	150	UL/CUL/TUV/CE	93.99	79.84	74.45
301479CR	Mean Well	PPS-125-48	+48V@0-2.6A	124.8W	90-264@47-63	250	UL/CUL/TUV/CE	93.99	79.84	74.45
301487CR	Mean Well	PPT-125B	+5V@1-14.4A; +12V@.3-3.8A; -12V@.05-.63A	124.5W	90-264@47-63	100	UL/CUL/TUV/CE	103.55	79.86	74.45
301495CR	Mean Well	PPT-125C	+5V@1-13.8A; +15V@.25-3.1A; -15V@.05-.63A	125.1W	90-264@47-63	100	UL/CUL/TUV/CE	103.55	79.86	74.45
218991CR	Artesyn	NLP150L-96S3	+3.3V@1-22A	72.6W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$110.69</del> 85.54	77.77	70.70
219011CR	Artesyn	NLP150L-96S5	+5.1V@1-22A	112.2W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$110.69</del> 85.54	77.77	70.70
219002CR	Artesyn	NLP150L-96S8	+24V@0.15-4.6A	110.4W	90-264@47-63	240	UL/CSA/VDE/CE	<del>\$110.69</del> 90.68	82.44	74.95
219029CR	Artesyn	NLP150L-96Q5366	+3.3V@0.5-10A; +5.1V@1.5-20A; +12V@0-2A; +12V@0-0.65A	120.0W	90-264@47-63	50	UL/CSA/VDE/CE	<del>\$110.69</del> 85.54	77.77	70.70
213698CR	Mean Well	LPP-150-5	+5V@0-30A	150.0W	85-264@47-63	100	UL/CUL/TUV/CE	<del>\$47.95</del> 42.09	38.26	34.78
213680CR	Mean Well	LPP-150-12	+12V@0-12.5A	150.0W	85-264@47-63	100	UL/CUL/TUV/CE	71.95	53.89	47.29
213671CR	Mean Well	LPP-150-24	+24V@0-6.3A	150.0W	85-264@47-63	150	UL/CUL/TUV/CE	71.95	53.89	47.29
216645CR	Mean Well	LPP-150-48	+48V@0-3.2A	153.6W	85-264@47-63	250	UL/CUL/TUV/CE	71.95	53.89	47.29

\* Primary Output

SALE

Quantity SAVE

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Mfr.	Manufacturer Product No.	Output		Input (VAC @ Hz)	Size Inches (LxWxH)	Mounting Holes Inches (LxWxDia.)	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Price		
			Voltage@Current (min-max)	Power								1	10	50
208670CR	Power-One	MPU1503300S240	+3.3V@30A; +12V@3A	135.0W	85-250@50-60	8.1x4.2x1.5	6.5x3.8x0.16	50	1.5	0.6	UL/CSA/TUV	<del>\$43.19</del> 55.75	\$5.24	\$4.76
196795CR	Cherokee	QP2A2-1A-A	+5V@40A; +12V@2.5A	230.0W	115/230@50-60	10.0x4.3x2.5	7.5x3.0x0.15	50	0.25	0.25	TUV	14.95	12.71	9.53
204581CR	Digital Pwr	UP300-201	+5V@1-40A; +12V@0.2-12A	300.0W	90-250@47-63	8.0x4.5x2.0	7.6x3.2x0.10	50	1.0	0.2	UL/CUL/CSA/TUV/CE	<del>\$34.75</del> 27.25	24.74	22.49
208733CR	Digital Pwr	USS256-351	+5.5V@1.8A; +12.9V@10A; +12.9V@0.9A	250.0W	90-250@47-63	10.0x4.5x1.9	—	—	—	—	UL/CUL/CSA/TUV/CE	<del>\$21.35</del> 12.39	11.27	10.24
220193CR	Cherokee	MQT154A1†	+3.3V@8A; +5V@26A; +12V@6A; -12V@1A	150.0W	100-240@47-63	8.0x4.3x1.5	6.4x2.5x0.13	—	—	—	UL/CSA	28.95	23.19	17.39
196701CR	Astec	NTQ123	+3.3V@0-25A; +5V@2-24A +12V@0-2A; -12V@0-1A	120.0W	85-264@47-63	7.0x4.0x1.5	—	50	—	—	UL/CSA/VDE/CE	28.95	25.95	19.95
211297CR	Power-One	MAP110-4300†	+3.3V@15A; +5V@8A; +12V@1A; -12V@1A	110.0W	85-264@47-63	7.0x4.3x2.0	6.5x2.8x0.17	30	0.7	0.3	UL/CSA/TUV/CE	24.95	21.21	15.91
206906CR	SSI	SQM200-1221	+5V@30A; +12V@7A; +12V@5A; ±5V@5A	200.0W	100/240@50-60	10.5x5.0x2.5	10.0x4.4x0.14	50	1.0	0.2	UL/CSA/TUV	<del>\$18.79</del> 8.15	7.42	6.74
210905CR	Lambda	WA305-00-03	+5V@50A; +12V@10A; +24V@4A; -5.2V@4A; -12V@4A	300.0W	85-264@45-440	11.9x5.0x1.8	8.1x2.5x0.16	50	1.0	0.2	CE	49.95	42.46	31.84
196461CR	TODD	MAX3541205AC	+5V@50A; +12V@12A; -5V@2A; -12V@4A	350.0W	115/230@50-60	9.0x5.0x2.5	6.5x3.9x0.08	50	1.0	1.0	TUV	47.95	40.79	30.59

\* Primary Output

† 8" power cable included



## 25-Watt Enclosed

### S-25 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- Voltage adjustment: 10%
- 105°C output capacitor
- Mating connector: 103587CR, pg 99
- -10°C to +60°C working temperature (see www.Jameco.com)
- Mounting hardware: use P/Ns 222121CR, 222156CR, 222172CR & 222164CR; see www.Jameco.com for specifications
- Universal AC input
- 1.2 watts/in<sup>2</sup> maximum
- Input: 88-264VAC @ 47-63Hz
- Two-year warranty



## 60-Watt Enclosed

### S-60, D-60, T-60 & Q-60 Series: Single, Dual, Triple & Quad Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Voltage adjustment: 10%
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temp. (see www.Jameco.com)
- Mounting hardware: use P/Ns 222130CR, 222156CR & 222172CR (see www.Jameco.com)
- Universal AC input
- 1.7 watts/in<sup>2</sup> maximum
- Input: 88-264VAC @ 47-63Hz
- Two-year warranty



These highly popular series Mean Well feature overload protection to 150% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Input AC surge current is limited to a safe level by a novel soft-start circuit. Working temperature is -10°C to 60°C, with derating below 0°C and above 45°C. Safety standards include UL1012, UL1950, IEC950 and TUV EN60950, and these products all carry the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.

## 40-Watt Enclosed

### S-40 & T-40 Series: Single & Triple Output

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 1.6 watts/in<sup>2</sup> max.
- Voltage adj.: 10%
- Two-year warranty
- Input: 88-264VAC @ 47-63Hz
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature (see www.Jameco.com)
- Mounting hardware: use P/Ns 222121CR, 222156CR & 222172CR (see www.Jameco.com)



The S-40 and T-40 series derive their impressive reliability from a conservative design, the exclusive use of high-quality components, and are assured to operate correctly anywhere in the world. These switchers feature universal input voltage ranges of 85-264VAC and 120-370VDC. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current. Manufacturer guaranteed safety standards comprise UL1012, UL1950 and TUV EN60950; and these products have earned the European CE mark.

Open-Frame Power Supplies  
on pages 128-134.

New Lower  
Prices

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

SALE

Quantity  
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Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
123246CR	Mean Well	S-25-5	+5V@0-5A	50	1	0.5	UL/TUV/CE	\$39.95	\$32.10	\$28.90
123254CR	Mean Well	S-25-12	+12V@0-2.1A	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
123262CR	Mean Well	S-25-15	+15V@0-1.7A	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
123271CR	Mean Well	S-25-24	+24V@0-1.1A	100	0.5	0.5	UL/TUV/CE	39.95	32.10	28.90
123289CR	Mean Well	S-40-5	+5V@0-8A	75	1	0.5	UL/CUL/TUV/CE	44.95	38.60	34.70
123297CR	Mean Well	S-40-12	+12V@0-3.5A	100	0.5	0.5	UL/CUL/TUV/CE	44.95	38.60	34.70
202139CR	Mean Well	S-40-15	+15V@0-2.8A	100	0.5	0.5	UL/CUL/TUV/CE	44.95	38.60	34.70
123318CR	Mean Well	S-40-24	+24V@0-1.8A	100	0.5	0.5	UL/CUL/TUV/CE	44.95	38.60	34.70
201988CR	Mean Well	T-40A	+5V@0.6-3A; +12V@0.2-2A; -5V@0.1-0.5A	100	0.5	0.5	UL/CUL/CE	49.95	42.10	37.90
201996CR	Mean Well	T-40B	+5V@0.6-3A; +12V@0.2-2A; -12V@0.1-0.5A	100	0.5	0.5	UL/CUL/CE	49.95	42.10	37.90
202008CR	Mean Well	T-40C	+5V@0.6-3A; +15V@0.2-1.5A; -15V@0.1-0.5A	100	0.5	0.5	UL/CUL/CE	49.95	42.10	37.90
123326CR	Mean Well	S-60-5	+5V@0-12A	120	1	0.5	UL/CUL/TUV/CE	53.95	45.86	34.39
123334CR	Mean Well	S-60-12	+12V@0-5A	120	0.5	0.5	UL/CUL/TUV/CE	53.95	41.50	37.30
123342CR	Mean Well	S-60-15	+15V@0-4A	150	0.5	0.5	UL/CUL/TUV/CE	53.95	41.50	37.30
123351CR	Mean Well	S-60-24	+24V@0-2.5A	150	0.5	0.5	UL/CUL/TUV/CE	53.95	41.50	37.30
123457CR	Mean Well	D-60A	+5V@0.3-4A; +12V@0.2-3A	75	0.5	0.5	UL/CUL/TUV/CE	54.95	44.10	39.70
123465CR	Mean Well	D-60B	+5V@0.3-3A; +24V@0.2-1.8A	75	0.5	0.5	UL/CUL/TUV/CE	54.95	44.10	39.70
123473CR	Mean Well	T-60A	+5V@0.5-5A; +12V@0.2-2.5A; -5V@0-0.5A	100	1	0.5	UL/CUL/TUV/CE	\$57.95	52.95	42.94
123481CR	Mean Well	T-60B	+5V@0.5-5A; +12V@0.2-2.5A; -12V@0-0.5A	100	1	0.5	UL/CUL/TUV/CE	57.95	47.00	42.30
123490CR	Mean Well	T-60C	+5V@0.5-5A; +15V@0.2-2A; -15V@0-0.5A	100	1	0.5	UL/CUL/TUV/CE	57.95	47.00	42.30
147045CR	Mean Well	Q-60B	+5V@0.5-5.5A; +12V@0.1-2A; -5V@0-0.5A; -12V@0-0.5A	100	0.5	0.5	UL/CUL	59.95	49.90	44.90

\* Primary Output

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
211115CR	Fortron	SU65P10C	+5V@0-10A	50	—	0.5	UL/CSA/TUV/CE	\$5.43	\$3.81	\$3.43
205794CR	Volgen	PRK15U-1212W	+12V@1A; +12V@0.5A	170	1	0.4	UL/CSA	10.89	9.89	8.99
205831CR	Volgen	PRK50U-1515W	+15V@1.5A; +15V@1.5A	200	1	0.4	UL/CSA	13.55	12.29	11.19

\* Primary Output

## 75-Watt Enclosed with Power Factor Correction



### SP-75 Series: Single Output

- 100% full-load burn-in
- 105°C output capacitor
- Power Factor Correction
- Input: 85-264VAC@47-63Hz
- No minimum load required
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature (see www.Jameco.com)
- Mounting hardware: use P/Ns 222148CR, 222156CR, 222164CR & 222172CR; (see www.Jameco.com for specifications)
- Universal AC input
- 2.1 watts/in<sup>3</sup> max.
- Voltage adj.: 10%
- Three-year warranty



The Mean Well SP-75 series features input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark for use worldwide. The high-density enclosed packaging results in a profile of only 1.3" and a power density of 2.1 watts per inch<sup>3</sup>.



## 100-Watt Enclosed



### S-100F Series: Single Output

- 100% full-load burn-in
- 105°C output capacitor
- No minimum load required
- Input: 88-132/176-264VAC@47-63Hz
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temp. (see www.Jameco.com)
- Mounting hardware: use P/Ns 222130CR, 222156CR and 222172CR (see www.Jameco.com for specifications)
- 2.3 watts/in<sup>3</sup> max.
- Voltage adj.: 10%
- Two-year warranty

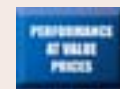


## 100-Watt Enclosed With Power Factor Correction



### SP-100, TP-100 & QP-100 Series: Single, Triple & Quad Outputs

- 100% full-load burn-in
- 2.3 watts/in<sup>3</sup> maximum
- 105°C output capacitor
- Input: 86-264VAC@47-63Hz
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temp. (see www.Jameco.com)
- Mounting hardware use P/Ns 222130CR, 222164CR, 222156CR, 222172CR & 222181CR (see www.Jameco.com for specifications)
- Universal AC input
- Power Factor Correction
- Voltage adjustment: 10%
- Three-year warranty



Mean Well's family of 100-watt enclosed switchers feature input Power Factor Correction of 0.98 at 115VAC that complies with EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark, for use worldwide. The high-density enclosed packaging results in a profile of only 1.8" and a power density of 2.0 watts per inch<sup>3</sup>.

Open-Frame Power Supplies on pages 128-134.

Quantity **SAVE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**SALE**

New Lower Prices

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
194829CR	Mean Well	SP75-5	+5V@0-15A	80	1	0.5	UL/CUL/TUV/CE	<del>\$65.49</del> \$59.95	\$53.96	\$48.56
194837CR	Mean Well	SP75-12	+12V@0-6.3A	80	0.5	0.5	UL/CUL/TUV/CE	69.95	61.05	53.89
194845CR	Mean Well	SP75-15	+15V@0-5A	80	0.5	0.5	UL/CUL/TUV/CE	69.95	61.05	53.89
194853CR	Mean Well	SP75-24	+24V@0-3.2A	100	0.5	0.5	UL/CUL/TUV/CE	69.95	61.05	53.89
216805CR	Mean Well	SP75-48	+48V@0-1.6A	100	0.5	0.5	UL/CUL/TUV/CE	69.95	61.05	53.89
201961CR	Mean Well	S-100F-5	+5V@0-20A	100	1	0.5	UL/TUV/CE	66.95	49.90	44.90
123385CR	Mean Well	S-100F-12	+12V@0-8.5A	125	0.5	0.5	UL/TUV/CE	66.95	49.90	44.90
212450CR	Mean Well	S-100F-15	+15V@0-6.7A	125	0.5	0.5	UL/TUV/CE	59.95	50.96	38.22
201970CR	Mean Well	S-100F-24	+24V@0-4.5A	150	0.5	0.5	UL/TUV/CE	66.95	49.90	44.90
216792CR	Mean Well	S-100F-48	+48V@0-2.2A	150	0.5	0.5	UL/TUV/CE	66.95	49.90	44.90
212441CR	Mean Well	SP100-3.3	+3.3V@0-20A	100	1	0.5	UL/CUL/TUV/CE	47.49	43.19	39.25
194790CR	Mean Well	SP100-5	+5V@0-20A	100	1	0.5	UL/CUL/TUV/CE	81.95	79.70	71.70
194802CR	Mean Well	SP100-12	+12V@0-8.5A	100	0.5	0.5	UL/CUL/TUV/CE	81.95	79.70	71.70
212433CR	Mean Well	SP100-15	+15V@0-6.7A	100	0.5	0.5	UL/CUL/TUV/CE	<del>\$69.95</del> 59.95	53.96	48.56
194811CR	Mean Well	SP100-24	+24V@0-4.2A	150	0.5	0.5	UL/CUL/TUV/CE	81.95	79.70	71.70
212425CR	Mean Well	SP100-48	+48V@0-2.1A	250	0.5	0.1	UL/CUL/TUV/CE	<del>\$81.95</del> 69.95	59.46	44.59
213794CR	Mean Well	TP-100A	+5V@3-10A; +12V@0.4-4A; -5V@0-0.6A	100	3	1	UL/CUL/TUV/CE	<del>\$81.99</del> 72.95	66.30	60.28
213786CR	Mean Well	TP-100B	+5V@3-10A; +12V@0.4-4A; -12V@0-0.6A	100	3	1	UL/CUL/TUV/CE	87.29	79.35	72.14
213778CR	Mean Well	TP-100C	+5V@3-10A; +15V@0.4-3A; -15V@0-0.6A	100	3	1	UL/CUL/TUV/CE	99.95	89.96	80.96
213612CR	Mean Well	QP-100F	+5V@2-8A; +15V@0-2A; +24V@0.3-1A; -15V@0-0.6A	120	2	1	UL/CUL/TUV/CE	78.39	71.25	64.79

\* Primary Output

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
205858CR	Volgen	JRK-115B	+5V@4.5A; +15V@3.5A; +24V@0.4A; -5V@1.6A; -15V@1.5A	100	0.8	0.4	—	\$19.69	\$17.90	\$16.27

\* Primary Output

Order Anytime 24x7x365

Phone 1-800-831-8242

Online [www.Jameco.com](http://www.Jameco.com)

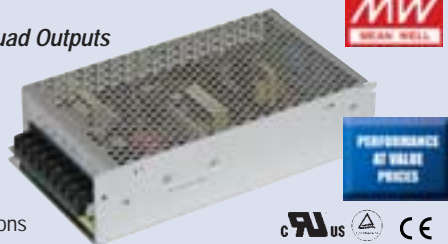
Fax 1-800-237-6948



## 120-Watt Enclosed

**D-120, T-120 & Q-120 Series: Dual, Triple & Quad Outputs**

- 100% full-load burn-in
- 105°C output capacitor
- Two-year warranty
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temp.  
(see [www.Jameco.com](http://www.Jameco.com) for output derating)
- Mounting hardware: use P/Ns 222130CR, 222156CR and 222172CR; see [www.Jameco.com](http://www.Jameco.com) for specifications



## 150-Watt Enclosed

**S-150 Series: Single Output**

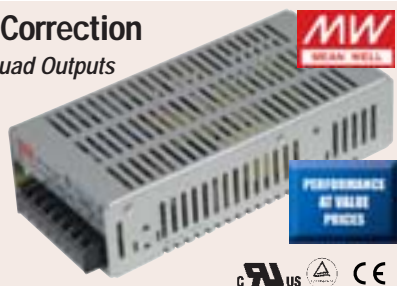
- 100% full-load burn-in
- No minimum load required
- Two-year warranty
- Voltage adj.: 10%
- 105°C output capacitor
- Input: 88-132/176-264@47-63
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature  
(see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CR, 222156CR & 222172CR (see [www.Jameco.com](http://www.Jameco.com))



## 150-Watt Enclosed with Power Factor Correction

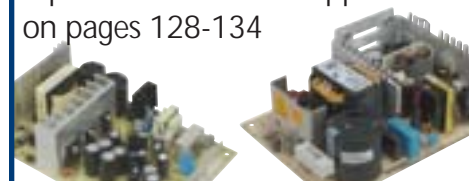
**SP-150, TP-150 & QP-150 Series: Single, Triple & Quad Outputs**

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 105°C output capacitor
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature  
(see [www.Jameco.com](http://www.Jameco.com))
- Mounting hardware: use P/Ns 222130CR, 222156CR, 222164CR, 222181CR & 222172CR  
(see [www.Jameco.com](http://www.Jameco.com) for specifications)



These advanced switchers are part of Mean Well's family of premium power supplies that carry an unusually long three-year manufacturer's warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using integrated components. The SP-150, TP-150 and QP-150 offer input Power Factor Correction that meets EN61000-3-2.

## Open-Frame Power Supplies on pages 128-134



Open-Frame Power Supplies on pages 128-134.

Quantity **SAVE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**SALE**

New Lower Prices

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
132409CR	Mean Well	D-120A	5V@2-12A; 12V@0.5-5A	60	0.5	0.5	UL/CUL/TUV/CE	\$69.95	\$58.29	\$51.69
132396CR	Mean Well	D-120B	5V@2-6A; 24V@0.4-4A	60	0.5	0.5	UL/CUL/TUV/CE	69.95	58.29	51.69
301508CR	Mean Well	T-120B	5V@2-12A; 12V@0.5-5A; -12V@0.2-1A	80	0.5	0.5	UL/CUL/TUV/CE	74.95	61.04	53.89
301516CR	Mean Well	T-120C	5V@2-12A; 15V@0.5-5A; -15V@0.2-1A	80	0.5	0.5	UL/CUL/TUV/CE	74.95	61.04	53.89
132388CR	Mean Well	Q-120B	5V@2-11A; -5V@0.2-1A; 12V@0.5-4A; -12V@0.2-1A	80	0.5	0.5	UL/CUL/TUV/CE	79.95	63.79	56.09
132370CR	Mean Well	Q-120D	5V@2-8A; 24V@0.2-2A; 12V@0.2-2A; -12V@0.2-1A	80	0.5	0.5	UL/CUL/TUV/CE	79.95	63.79	56.09
123393CR	Mean Well	S-150-5	5V@0-30A	150	0.5	0.5	UL/CUL/TUV/CE	\$69.95	64.79	58.30
123414CR	Mean Well	S-150-7.5	7.5V@0-20A	150	0.5	0.5	UL/CUL/TUV/CE	\$69.95	64.79	58.30
123422CR	Mean Well	S-150-12	12V@0-12.5A	180	0.3	0.3	UL/CUL/TUV/CE	\$69.95	64.79	58.30
202024CR	Mean Well	S-150-13.5	13.5V@0-11.2A	180	0.3	0.3	UL/CUL/TUV/CE	\$69.95	64.79	58.30
123431CR	Mean Well	S-150-15	15V@0-10A	180	0.3	0.3	UL/CUL/TUV/CE	\$69.95	64.79	58.30
123449CR	Mean Well	S-150-24	24V@0-6.5A	240	0.2	0.2	UL/CUL/TUV/CE	69.95	58.30	52.50
202032CR	Mean Well	S-150-27	27V@0-5.6A	240	0.2	0.2	UL/CUL/TUV/CE	\$69.95	64.79	58.30
167345CR	Mean Well	S-150-48	48V@0-3.2A	240	0.2	0.2	UL/CUL/TUV/CE	\$69.95	64.79	58.30
201902CR	Mean Well	SP-150-3.3	3.3V@0-30A	100	1	0.5	UL/CUL/TUV/CE	91.95	78.16	58.62
201911CR	Mean Well	SP-150-5	5V@0-30A	100	1	0.5	UL/CUL/TUV/CE	\$91.95	82.75	74.49
173420CR	Mean Well	SP-150-12	12V@0-12.5A	100	0.5	0.5	UL/CUL/TUV/CE	91.95	82.76	74.48
173411CR	Mean Well	SP-150-15	15V@0-10A	100	0.5	0.5	UL/CUL/TUV/CE	91.95	82.76	74.48
173403CR	Mean Well	SP-150-24	24V@0-6.3A	150	0.5	0.5	UL/CUL/TUV/CE	91.95	82.76	74.48
201929CR	Mean Well	SP-150-48	48V@0-3.2A	250	0.5	0.5	UL/CUL/TUV/CE	\$91.95	82.75	70.34
213840CR	Mean Well	TP-150B	5V@2-15A; 12V@0.4-5.5A; -12V@0-0.6A	100	3	1	UL/CUL/TUV/CE	93.21	83.89	75.50
213831CR	Mean Well	TP-150C	5V@2-15A; 15V@0.4-4.5A; -15V@0-0.6A	100	3	1	UL/CUL/TUV/CE	93.21	83.89	75.50
213823CR	Mean Well	TP-150D	5V@2-15A; 24V@0.4-3A; 12V@0-0.6A	100	3	1	UL/CUL/TUV/CE	\$94.36	80.65	73.31
213633CR	Mean Well	QP-150-3B	3.3V@0-10A; 5V@3-10A; 12V@0.4-5A; -12V@0-0.6A	100	2	1	UL/CUL/TUV/CE	\$104.95	89.55	81.42
213647CR	Mean Well	QP-150F	5V@3-10A; 15V@0-3A; 24V@0.4-2A; -15V@0-0.6A	120	2	1	UL/CUL/TUV/CE	145.95	120.99	106.99

\* Primary Output

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
205701CR	Volgen	EXU-05030	5V@30A	—	0.8	0.4	UL/CSA	\$23.95	\$18.79	\$17.07
199515CR	Globtek	RT-3S150-24	24V@6.5A	100	5	5	UL/CE	59.95	47.95	35.95

\* Primary Output



# 200 to 240-Watt Enclosed Switching AC-to-DC Power Supplies

Color Code Legend  
New Sale Qty Save Closeout

## 200-Watt Enclosed With Power Factor Correction

### SP-200 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Power Factor Correction
- 105°C output capacitor
- Built-in fan cooling
- Input: 85-264VAC@47-63Hz
- Mating connector: P/N 103587CR, pg 99
- -10° to +60°C working temperature (see www.Jameco.com)
- Mounting hardware use P/Ns 222130CR, 222156CR, 222164CR, 222181CR & 222172CR (see www.Jameco.com for specifications)
- Three-year warranty
- 3.3 watts/in<sup>3</sup> maximum
- Voltage adj.: 10%



## 200-Watt Enclosed With Power Factor Correction

### QP-200 Series: Quad Output

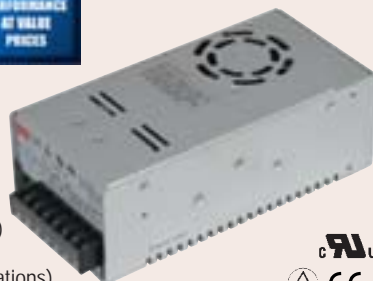
- 100% full-load burn-in
- Universal AC input
- Remote sense
- Power Factor Correction
- 105°C output capacitor
- 2.6 watts/in<sup>3</sup> maximum
- Built-in fan cooling
- Three-year warranty
- Mating connector: P/N 103587CR, pg 99
- -10° to +60°C working temp. (see www.Jameco.com)
- Mounting hardware use P/Ns 222148CR, 222156CR, 222181CR & 222172CR (see www.Jameco.com for specifications)



## 240-Watt Enclosed

### S-240 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105°C output capacitor
- Input: 88-132/176-264VAC@47-63Hz
- Voltage adj.: 10%
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature (see www.Jameco.com)
- Mounting hardware use P/Ns 222148CR, 222156CR & 222172CR (see www.Jameco.com for specifications)
- Auto-switch AC input
- 3.4 watts/in<sup>3</sup> max.
- Auto cooling fan
- Two-year warranty



Open-Frame Power Supplies  
on pages 128-134.

Quantity  
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Prices

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
212417CR	Mean Well	SP-200-3.3	+3.3V@0-40A	100	1	0.5	UL/CUL/TUV/CE	\$70.64	\$58.59	\$53.27
202041CR	Mean Well	SP-200-5	+5V@0-40A	100	1	0.5	UL/CUL/TUV/CE		102.95	87.51
194773CR	Mean Well	SP-200-12	+12V@0-16.7A	100	0.5	0.5	UL/CUL/TUV/CE		102.95	92.66
212409CR	Mean Well	SP-200-13.5	+13.5V@0-14.9A	100	0.5	0.5	UL/CUL/TUV/CE		102.95	92.66
202059CR	Mean Well	SP-200-15	+15V@0-13.4A	100	0.5	0.5	UL/CUL/TUV/CE		102.95	87.51
194781CR	Mean Well	SP-200-24	+24V@0-8.4A	150	0.5	0.5	UL/CUL/TUV/CE		102.95	92.66
202067CR	Mean Well	SP-200-48	+48V@0-4.2A	250	0.5	0.5	UL/CUL/TUV/CE		102.95	92.66
213743CR	Mean Well	QP-200-3B	+3.3V@0-15A; +5V@3-15A; +12V@0.5-6A; -12V@0-0.7A	100	2	1	UL/CUL/TUV/CE	\$142.95	96.45	87.66
213735CR	Mean Well	QP-200-3D	+3.3V@0-15A; +5V@3-10A; +24V@0.4-4A; -12V@0-0.7A	100	2	1	UL/CUL/TUV/CE	\$142.95	97.69	88.81
213751CR	Mean Well	QP-200D	+5V@3-15A; +12V@0-4A; +24V@0.4-3A; -12V@0-0.7A	100	2	1	UL/CUL/TUV/CE		156.95	127.99
202083CR	Mean Well	S-240-5	+5V@0-40A	150	1	0.5	UL/CUL/TUV/CE		91.10	81.99
137648CR	Mean Well	S-240-12	+12V@0-18A	150	0.5	0.5	UL/CUL/TUV/CE		109.95	98.95
202075CR	Mean Well	S-240-15	+15V@0-15A	150	0.5	0.5	UL/CUL/TUV/CE		99.95	89.95
137656CR	Mean Well	S-240-24	+24V@0-10A	180	0.5	0.5	UL/CUL/TUV/CE		109.95	98.95
167337CR	Mean Well	S-240-48	+48V@0-5A	240	1	1	UL/CUL/TUV/CE		109.95	93.46

\* Primary Output



Opening an account is easy!!

**Corporate Customers**

Call 1-800-831-4242  
for details today.

See page 87 for Mating Connectors.



Line Cords on page 158.



## 300 & 320-Watt Enclosed With Power Factor Correction

### SP-300 & SP-320 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- Power Factor Correction
- Input: 88-264VAC@47-63Hz
- 105°C output capacitor
- Mating connector: P/N 103587CR, pg 99
- Working temperature: SP-300: -10° to +60°C; SP-320 -20° to 65°(see www.Jameco.com)
- Mounting hardware: use P/Ns 222156CR, 222130CR, 222181CR and 222172CR (www.Jameco.com for specs)

The SP-300 and SP-320 series feature input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above.



## 320-Watt Enclosed

### S-320 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- Voltage adj.: 10%
- 105°C output capacitor
- Input: 88-132/176-264VAC@47-63Hz
- Mating connector: P/N 103587CR, pg 99
- -10° to +60°C working temp. (see www.Jameco.com)
- Mounting hardware: use P/Ns 222156CR, 222148CR, 222181CR & 222172CR (see www.Jameco.com)
- Auto cooling fan
- 4.1 watts/in<sup>2</sup> max.
- Two-year warranty



## 375-Watt Enclosed With Power Factor Correction

### QP-375 Series: Quad Output

- 100% full-load burn-in
- Remote sense function
- Input: 88-264VAC@47-63Hz
- 105°C output capacitor
- Mating connector: P/N 103587CR, pg 99
- -10°C to +60°C working temperature (see www.Jameco.com)
- Mounting hardware: use P/Ns 222156CR & 222172CR (see www.Jameco.com for specifications)
- Universal AC input
- 2.8 watts/in<sup>2</sup> max.
- Voltage adj.: 10%
- Three-year warranty



## 480-Watt Enclosed

### SP-480 Series: Single Output

- Universal AC input
- Short circuit/ overload/ over-voltage/ over-temperature function
- -20°C to +60°C working temperature (see www.Jameco.com)
- High power density: 5.18 watts/in<sup>2</sup> max.
- Inrush current: 25A@115VAC
- Leakage current: <2mA@240VAC
- Size: 10.9"L x 5.0"W x 1.7"H
- Power Factor Correction
- Built-in ON-OFF control
- Remote sense function
- Active AC surge current limiting
- Three-year warranty



Open-Frame Power Supplies  
on pages 128-134.

Quantity  
**SAVE**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

**SALE**

New Lower  
Prices

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (±%)*	Line Reg. (±%)*	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
202091CR	Mean Well	SP-300-5	+5V@0-50A	150	1	0.5	UL/CUL/TUV/CE	\$181.95	\$154.66	\$115.99
137390CR	Mean Well	SP-300-12	+12V@0-24A	150	0.5	0.3	UL/CUL/TUV/CE	181.95	159.70	143.80
212396CR	Mean Well	SP-300-13.5	+13.5V@0-21A	150	0.5	0.3	UL/CUL/TUV/CE	181.95	154.66	115.99
202104CR	Mean Well	SP-300-15	+15V@0-19A	150	0.5	0.3	UL/CUL/TUV/CE	181.95	159.70	143.80
137402CR	Mean Well	SP-300-24	+24V@0-12.5A	150	0.5	0.2	UL/CUL/TUV/CE	181.95	159.70	143.80
161980CR	Mean Well	SP-300-48	+48V@0-6.25A	240	0.5	0.2	UL/CUL/TUV/CE	181.95	154.66	115.99
244734CR	Mean Well	SP-320-5	+5V@0-55A	150	1	0.5	UL/CUL/TUV/CE	146.95	132.25	118.99
244742CR	Mean Well	SP-320-12	+12V@0-25A	150	0.5	0.3	UL/CUL/TUV/CE	146.95	132.25	118.99
244751CR	Mean Well	SP-320-24	+24V@0-13A	150	0.5	0.2	UL/CUL/TUV/CE	146.95	132.25	118.99
244769CR	Mean Well	SP-320-48	+48V@0-6.7A	240	0.5	0.2	UL/CUL/TUV/CE	146.95	132.25	118.99
216776CR	Mean Well	S-320-5	+5V@0-50A	150	1	0.5	UL/CUL	124.95	112.80	101.50
207212CR	Mean Well	S-320-7.5	+7.5V@0-36A	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
207204CR	Mean Well	S-320-12	+12V@0-25A	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
196656CR	Mean Well	S-320-24	+24V@0-12.5A	150	0.5	0.5	UL/CUL	124.95	112.80	101.50
207191CR	Mean Well	S-320-48	+48V@0-6.5A	240	0.5	0.5	UL/CUL	124.95	112.80	101.50
220302CR	Mean Well	QP-375-5A	+5V@3.5-30A; +12V@0-10A; +12V@0-6A; +12V@0-3A	100	0.8	0.5	UL/CUL/TUV/CE	\$277.11 232.85	211.69	192.45
220290CR	Mean Well	QP-375-5B	+5V@3.5-30A; +12V@0-10A; +12V@0-6A; +5V@0-3A	100	0.8	0.5	UL/CUL/TUV/CE	\$277.11 232.85	211.69	192.45
220281CR	Mean Well	QP-375-5D	+5V@3.5-30A; +12V@0-9A; +12V@0-4A; +24V@0-3A	100	0.8	0.5	UL/CUL/TUV/CE	\$277.11 226.99	206.34	187.58
301372CR	Mean Well	SP480-12	+12V@0-40A	120	0.5	0.3	UL/CUL/TUV/CE	293.95	253.68	228.33
301321CR	Mean Well	SP480-24	+24V@0-20A	150	0.5	0.2	UL/CUL/TUV/CE	293.95	253.68	228.33
301401CR	Mean Well	SP480-48	+48V@0-10A	240	0.5	0.2	UL/CUL/TUV/CE	293.95	253.68	228.33

\* Primary Output

## 500-Watt Enclosed With Power Factor Correction

### SP-500 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- 3.6 watts/in<sup>3</sup> max.
- Remote control
- Auto cooling fan
- Voltage adj.: 10%
- Three-year warranty
- 105°C output capacitor
- Power Factor Correction
- No minimum load required
- Input: 100-240VAC@50-60Hz
- Mating connector: P/N 103587CR pg 99
- Mounting hardware: use P/Ns 222199CR, 222156CR & 222172CR (see [www.Jameco.com](http://www.Jameco.com))
- -10° to +60°C working temp. (see [www.Jameco.com](http://www.Jameco.com))



## 500, 1000 & 1500-Watt Enclosed With Power Factor Correction & Current Sharing

### PSP-500, PSP-1000 & PSP-1500 Series: Single Output

- 100% full-load burn-in
- Voltage adj.: 10%
- 3.6 watts/in<sup>3</sup> max.
- Remote sense and control
- Input: 90-264VAC@47-63Hz (PSP-500 and PSP-1000) 176-264VAC@47-63Hz (PSP-1500)
- Parallel operation (current sharing)
- -10° to +60°C working temp. (see [www.Jameco.com](http://www.Jameco.com) for output derating)
- Mounting hardware: use P/Ns 222156CR & 222172CR (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Universal AC input
- No minimum load required
- 105°C output capacitor
- Auto cooling fan
- Mating connector: P/N 103587CR, pg 99
- Three-year warranty



## 600-Watt Enclosed With Current Sharing

### SCN-600 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 3.7 watts/in<sup>3</sup> maximum
- Input: 90-130/180-260VAC@47-63Hz
- 105°C output capacitor
- Remote sense and control
- Mounting hardware: use P/Ns 222156CR & 222172CR (see [www.Jameco.com](http://www.Jameco.com) for specifications)
- Auto cooling fan
- Voltage adj.: 5%
- Two-year warranty
- Parallel operation (current sharing)
- Mating connector: P/N 103587CR, pg 99
- (+50° to -65°C @ 50% load) (see [www.Jameco.com](http://www.Jameco.com))



## 600-Watt Enclosed

### SE-600 Series: Single Output

- AC input range switch selectable
- AC input active surge current limiting
- Inrush current: 30A@115VAC
- Leakage current: <2mA@240VAC
- Short circuit/overload/over-voltage/over-temperature protection
- -20° to +60°C working temperature (see [www.Jameco.com](http://www.Jameco.com))
- Size: 9.7"L x 5.0"W x 2.5"H
- Two-year warranty



## Jameco's Low-Price Guarantee

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!

Open-Frame Power Supplies on pages 128-134.

**SALE**

**New Lower Prices**

For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

Jameco Part No.	Manufacturer	Manufacturer Product No.	Output	Ripple & Noise (mV p-p)*	Load Reg. (%)	Line Reg. (%)	Certification	Pricing		
			Voltage@Current (min-max)					1	10	25
190692CR	Mean Well	SP500-12	+12V@0-40A	240	0.5	0.5	UL/CUL/TUV/CE	\$249.95	\$216.10	\$194.50
212388CR	Mean Well	SP500-13.5	+13.5V@0-36A	240	0.5	0.5	UL/CUL/TUV/CE	249.95	216.10	194.50
213604CR	Mean Well	SP500-15	+15V@0-32A	240	0.5	0.5	UL/CUL/TUV/CE	239.95	203.96	152.97
147053CR	Mean Well	SP500-24	+24V@0-20A	240	0.5	0.5	UL/CUL/TUV/CE	249.95	216.10	194.50
190705CR	Mean Well	SP500-27	+27V@0-18A	200	0.5	0.5	UL/CUL/TUV/CE	249.95	216.10	194.50
161795CR	Mean Well	SP500-48	+48V@0-10A	300	0.5	0.5	UL/CUL/TUV/CE	249.95	216.10	194.50
202112CR	Mean Well	PSP-500-5	+5V@0-80A	100	2	0.5	UL/CUL/TUV/CE	\$202.59	166.75	151.58
190713CR	Mean Well	PSP-500-12	+12V@0-41.5A	150	0.5	0.3	UL/CUL/TUV/CE	269.95	232.09	216.69
202121CR	Mean Well	PSP-500-15	+15V@0-33A	150	0.5	0.3	UL/CUL/TUV/CE	269.95	229.46	172.09
190721CR	Mean Well	PSP-500-24	+24V@0-20.8A	150	0.5	0.2	UL/CUL/TUV/CE	269.95	229.46	172.09
190730CR	Mean Well	PSP-500-27	+27V@0-18.5A	150	0.5	0.2	UL/CUL/TUV/CE	269.95	229.46	172.09
190748CR	Mean Well	PSP-500-48	+48V@0-10.5A	200	0.5	0.2	UL/CUL/TUV/CE	269.95	232.09	216.69
217373CR	Mean Well	PSP-1000-5	+5V@0-145A	100	2	0.5	UL/CUL/TUV/CE	499.95	424.96	318.72
217365CR	Mean Well	PSP-1000-12	+12V@0-75A	150	0.5	0.3	UL/CUL/TUV/CE	523.95	442.19	402.59
231642CR	Mean Well	PSP-1000-13.5	+13.5V@0-67A	150	0.5	0.3	UL/CUL/TUV/CE	523.95	442.19	402.59
231634CR	Mean Well	PSP-1000-15	+15V@0-60A	150	0.5	0.3	UL/CUL/TUV/CE	523.95	442.19	402.59
217357CR	Mean Well	PSP-1000-24	+24V@0-37.6A	150	0.5	0.2	UL/CUL/TUV/CE	523.95	442.19	402.59
231651CR	Mean Well	PSP-1000-27	+27V@0-33.6A	150	0.5	0.2	UL/CUL/TUV/CE	523.95	442.19	402.59
217349CR	Mean Well	PSP-1000-48	+48V@0-19A	200	0.5	0.2	UL/CUL/TUV/CE	523.95	442.19	402.59
231669CR	Mean Well	PSP-1500-5	+5V@0-217.5A	100	2	0.5	CUL/TUV/CE	786.95	663.25	619.25
231677CR	Mean Well	PSP-1500-12	+12V@0-112.5A	150	0.5	0.3	CUL/TUV/CE	581.85	523.68	471.31
231685CR	Mean Well	PSP-1500-13.5	+13.5V@0-100.5A	150	0.5	0.3	CUL/TUV/CE	581.39	523.24	470.91
231693CR	Mean Well	PSP-1500-15	+15V@0-90.0A	150	0.5	0.3	CUL/TUV/CE	786.95	663.25	619.25
231706CR	Mean Well	PSP-1500-24	+24V@0-56.4A	150	0.5	0.2	CUL/TUV/CE	786.95	663.25	619.25
231714CR	Mean Well	PSP-1500-27	+27V@0-50.4A	150	0.5	0.2	CUL/TUV/CE	786.95	663.25	619.25
231722CR	Mean Well	PSP-1500-48	+48V@0-28.5A	200	0.5	0.2	CUL/TUV/CE	786.95	663.25	619.25
220249CR	Mean Well	SCN-600-05	+5V@0-100A	100	2	0.5	UL/CUL	273.95	213.99	197.99
220257CR	Mean Well	SCN-600-12	+12V@0-50A	120	1	0.5	UL/CUL	273.95	213.99	197.99
220265CR	Mean Well	SCN-600-24	+24V@0-25A	240	1	0.5	UL/CUL	273.95	213.99	197.99
291522CR	Mean Well	SE-600-15	+15V@0-40A	150	0.5	0.5	UL/CUL	173.95	156.59	140.89
295902CR	Mean Well	SE-600-24	+24V@0-25A	150	0.5	0.5	UL/CUL	173.95	156.59	140.89
295911CR	Mean Well	SE-600-27	+27V@0-22.2A	150	0.5	0.5	UL/CUL	173.95	156.59	140.89
295929CR	Mean Well	SE-600-48	+48V@0-12.5A	200	0.5	0.5	UL/CUL	173.95	156.59	140.89

\* Primary Output



## DIN-Rail Switching Power Supplies

- Low cost, high reliability
- Soft-start circuit, limiting AC surge current
- Short-circuit, overload, over-voltage protected
- 100% full-load burn-in test
- For DIN-Rail terminal blocks see page 98

Additional  
Mounting Rails see  
www.Jameco.com

UL-508



192698CR



212273CR



212290CR



221891CR



252662CR

Part No.	Product No.	Power (W)	Output Volts@Current	Input Voltage (VAC @ Hz/VDC)	Input Current @ Maximum Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
212302CR	DR-4505	25	5VDC @ 5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.9	\$45.95	\$35.19	\$32.99
192698CR	DR-4512	42	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	45.95	35.19	32.99
221874CR	DR-4515	42	15VDC @ 2.8A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.9	45.95	35.19	32.99
192680CR	DR-4524	48	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	45.95	35.19	32.99
212290CR	DR-7512	75	12VDC @ 6.3A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	56.09	51.69
212281CR	DR-7524	75	24VDC @ 3.2A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	73.95	56.09	51.69
221866CR	DR-7548	75	48VDC @ 1.6A	85-264 @ 47-63/120-370	2.0A(115V)/1.2A(230V)	3.9 x 2.1 x 4.9	1.2	48.82	44.39	40.35
212273CR	DR-12012	120	12VDC @ 10A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	64.89	60.49
212265CR	DR-12024	120	24VDC @ 5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	64.89	60.49
221903CR	DR-12048	120	48VDC @ 2.5A	88-132/176-264* @ 47-63	2.8A(115V)/1.7A(230V)	2.6 x 3.9 x 4.9	1.4	85.95	73.06	54.79
221891CR	DRP-24024†	240	24VDC @ 10A	85-264 @ 47-63/120-370	3.5A(115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	112.19	104.49
221882CR	DRP-24048†	240	48VDC @ 5.0A	85-264 @ 47-63/120-370	3.5A(115V)/1.8A(230V)	3.9 x 4.9 x 4.9	2.4	156.95	133.41	100.06
252662CR	DRP-48024†	480	24VDC @ 20.0A	180-264 @ 47-63/25-370	4.0A(230V)	8.9 x 3.9 x 4.9	4.6	218.95	207.99	197.60
252654CR	DRP-48048†	480	48VDC @ 10.0A	180-264 @ 47-63/25-370	4.0A(230V)	8.9 x 3.9 x 4.9	4.6	218.95	207.99	197.60
295937CR	DRP-4805-24†	480	24VDC @ 20.0A	90-132/180-264** @ 47-63/254-370	11.0A(115V)/4.0A(230V)	8.9 x 3.9 x 4.9	4.6	225.35	215.03	204.28
301305CR	DRP-4805-48†	480	48VDC @ 10.0A	90-132/180-264** @ 47-63/254-370	11.0A(115V)/4.0A(230V)	8.9 x 3.9 x 4.9	4.6	225.35	215.03	204.28

\*Switch selectable \*\*DRP-4805 series: AC input switch selectable † With Power Factor Correction

## DIN Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks &amp; power supplies configured for DIN mounting.

Part No.	Product No.	Description	Material	Type	Length	1	10	100
248735CR	2094.0	Prepunched	Zinc bichromate plate steel	TS35x7.5	1 meter (39")	\$6.79	\$5.45	\$4.10

## 13.8VDC Precision Regulated Power Supplies

- Output voltage: 13.8VDC
- Heavy duty 5'8" 3-prong power cord
- Short-circuit protection
- Output mating terminals: see page 100 for cigarette plugs & page 196 for banana terminal plugs
- Input voltage: 115VAC @ 60Hz
- Illuminated rocker switch
- Fuse protected

135845CR  
Banana/  
Cigarette136581CR  
Banana  
terminal138667CR  
Banana  
terminal  
(rear)

Part No.	Model No.	Power (W)	Output Current (A)	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
135845CR	RPS1204	55.2	4	Banana terminals / cigarette plug	6.7 x 5.2 x 3.2	5.5	\$29.95	\$26.95	\$23.95
136581CR	RPS1207†	96.6	7	Banana terminals	8.7 x 5.7 x 3.6	8.5	59.95	53.95	48.95
138667CR	38-381	138.0	10	Banana terminals (rear)	7.0 x 6.6 x 4.3	10.0	69.95	62.95	56.95
138675CR	52-192012	276.0	20	Banana terminals	10.0 x 7.8 x 4.4	15.9	109.95	99.95	89.95

† P/N 136581CR includes overheating protection

## ACDC Electronics

## 45-Watt Linear Power Supply

- Input connector: 0.173" solder terminals
- Output connector: solder studs

Part No.	Product No.	Output Voltage	Input Voltage	Size	Weight	1	10	25
214615CR	ECV15N3	15V @ 3A	115VAC @ 50-60Hz	5.6"L x 5.0"W x 3.0"H	4.0 lbs.	\$12.65	\$11.50	\$10.46

SALE



## 6 to 10-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

## 6-Amp SIL06C Series

ARTESYN  
TECHNOLOGIES

- di/dt: 10A/µs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Ultra-wide trim range
- "Power good" signal
- Planar magnetics technology
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)
- Very high MTBF
- Two-year warranty



219150CR



219168CR

## 10-Amp SIL10E Series

ARTESYN  
TECHNOLOGIES

- di/dt: 10A/µs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- 96% efficiency at 3.3V
- Highest power density: 107W/in³
- Planar magnetics technology
- Protection: thermal & short-circuit
- Working temperature: -40° to +100°C (derated above 70°C)
- Very high MTBF
- Two-year warranty
- Remote sense



219141CR



Mfr.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Temp. °C	Efficiency (%)	MTBF (hours)	Jameco Part No.	Price			
			Voltage@Current	Power									1	10	25	100
Artesyn	SIL06C-05SADJ-V	4.5V-5.5V	0.9-3.3V@6A	20W	1.2x0.6x0.07	8	0.2	0.5	0 to +80	89	1,300,000	219150CR	\$10.78	\$9.80	\$8.91	\$8.10
Artesyn	SIL06C-05SADJ-H	4.5V-5.5V	0.9-3.3V@6A	20W	1.2x0.6x0.53	8	0.2	0.5	0 to +80	89	1,300,000	219168CR	10.78	9.80	8.91	8.10
Artesyn	SIL10E-05S1V8-V	3.0V-5.5V	1.8V@10A	18W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	92	7,042,000	219141CR	20.36	18.51	16.82	15.30
Artesyn	SIL10E-05S2V5-V	3.0V-5.5V	2.5V@10A	25W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	94	7,042,000	219133CR	19.79	17.99	16.35	14.86
Artesyn	SIL10E-05W3V3-V	4.5V-5.5V	0.8-3.6V@10A	33W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	219117CR	20.60	18.73	17.02	15.48
Artesyn	SIL10E-05S3V3-V	4.5V-5.5V	3.3V@10A	33W	2.0x0.5x0.31	11	1.0	1.0	-40 to +100	95	7,042,000	219125CR	20.60	18.73	17.02	15.48

SALE

New Lower  
Prices

# 15 to 30-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

Color Code Legend  
New Sale Qty. Save Closeout

## 15-Amp SIL15C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Two-year warranty
- Ultra-wide trim range
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)

ARTESYN  
TECHNOLOGIES



## 30-Amp SIL30C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Two-year warranty
- Ultra-wide trim range
- Horizontal & vertical models
- Protection: over-current, over-temperature & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)

ARTESYN  
TECHNOLOGIES



For Complete Specifications visit [www.Jameco.com](http://www.Jameco.com).

New Lower Prices

SALE

Mfr.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Temp. °C	Efficiency (%)	Jameco Part No.	Price			
			Voltage@Current	Power								1	10	25	100
Artesyn	SIL15C-05SADJ-V	4.5V-5.5V	0.9V-3.3V@15A	50W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	89	218886CR	\$13.49	\$12.81	\$12.17	\$11.06
Artesyn	SIL15C-12SADJ-V	10.2V-13.8V	0.9V-5V@15A	75W	1.20x1.10x0.40	13	0.2	0.5	0 to +80	91	218878CR	16.65	15.19	13.74	12.29
Artesyn	SIL30C-12SADJ-V	10.2V-13.8V	0.9V-5V@30A	150W	2.40x1.25x0.47	24	0.2	1.0	0 to +80	91	218860CR	19.95	19.74	19.53	19.32

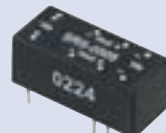
## 0.5 to 10-Watt Isolated DC-to-DC Converters

### 0.5 & 1-Watt Regulated & Unregulated Encapsulated

- 1000VDC isolation
- Protection: short-circuit
- 100% burn-in test
- Input filter: capacitor type
- No external components needed
- Working temp.: -15 to +60°C
- One-year warranty



Other Versions Available: Call 800-831-4242



SALE

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
213225CR	SRS-0505	4.5-5.5V	+5V@100mA	0.5W	0.88x0.39x0.33	8	1.0	1.0	100	\$6.49	\$5.89	\$5.35	\$4.85
216830CR	SPR01L-12	4.5-5.5V	+12V@84mA	1W	0.77x0.28x0.4	4	1.0	1.0	100	8.95	8.06	7.25	6.52

### 3 & 5-Watt Regulated Encapsulated

- 1000VDC isolation
- Input filter: Pi network
- No external components needed
- 2:1 wide input range
- 100% burn-in test
- Working temperature: -15 to +60°C
- Shielded metal case
- Protection: short-circuit & overload
- One-year warranty



SALE

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
213268CR	SCW03A-05	9-18V	+5V@600mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	\$15.49	\$13.95	\$12.59	\$11.29
155918CR	DCW03A-05	9-18V	+5V@300mA; -5V@300mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	20.95	18.89	16.99	15.29
161701CR	DCW03A-12	9-18V	+12V@125mA; -12V@125mA	3W	1.25x0.8x0.48	10	1.0	0.5	100	20.95	18.89	16.99	15.29
220388CR	SLW05L-12	4.5-9V	+12V@417mA	5W	2x1x0.44	5	0.2	0.5	100	24.95	22.49	20.25	18.25
220353CR	SLW05A-033	9-18V	+3.3V@1500mA	5W	2x1x0.44	5	0.2	0.5	100	24.95	19.95	17.95	16.16
216928CR	SLW05A-05	9-18V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
216881CR	SLW05A-15	9-18V	+15V@333mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
220361CR	SLW05B-033	18-36V	+3.3V@1500mA	5W	2x1x0.44	5	0.2	0.5	100	24.95	16.25	14.76	13.42
216936CR	SLW05B-05	18-36V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	22.49	20.25	18.25
216910CR	SLW05B-12	18-36V	+12V@417mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	21.95	19.76	17.78
216864CR	DLW05B-12	18-36V	+12V@208mA; -12V@208mA	5W	2x1x0.44	5	0.2	0.2	100	24.95	24.95	22.46	20.21
216872CR	SLW05B-15	18-36V	+15V@333mA	5W	2x1x0.44	5	1.0	0.2	100	24.95	17.05	15.49	14.08
213233CR	SLW05C-05	36-72V	+5V@1000mA	5W	2x1x0.44	5	1.0	0.2	100	17.22	15.50	13.95	12.56

### 10-Watt Open Frame

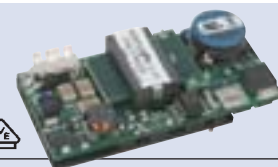
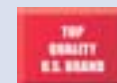
#### CXA10 Series: Single Output

- Isolation voltage: 1500VDC
- Protection: short-circuit & overload
- Two-year warranty
- Industry standard footprint
- 100% burn-in test
- Working temp.: -40 to +100°C (see [www.Jameco.com](http://www.Jameco.com))
- Remote ON/OFF
- 4:1 input voltage range

ARTESYN  
TECHNOLOGIES

SALE

Other Versions Available: Call 800-831-4242



Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
219037CR	CXA10-48S3V3	18-75V	+3.3V@2400mA	7.9W	2x1x0.54	6	0.1	0.2	30	\$34.84	\$31.68	\$28.80	\$26.18
219045CR	CXA10-48S05	18-75V	+5.0V@2000mA	10W	2x1x0.54	6	0.1	0.2	30	38.89	35.05	31.49	30.45

### Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Ripple & Noise (mV p-p)	Line Reg. (±%)	Load Reg. (±%)	Switching Freq. (Hz)	Isolation Voltage	Price			
				Voltage@Current	Power								1	10	25	100
206076CR	Trimag	TDB4W-4805S	36-72V	+5V@500mA	3W	1.2x0.8x0.5	12	50	1.0	1.0	25k	500	\$5.99	\$5.44	\$4.95	\$4.50

SALE

## 10-Watt Encapsulated

- Isolation voltage: 1000VDC
- 2:1 wide input range
- Working temperature: -15 to +60°C
- Free-air convection cooling

- Input filter: Pi-network
- Shielded metal case
- Industry standard package
- One-year warranty

Quantity  
**SAVE**

- 100% burn-in test
- Protection: short-circuit & overload



New Lower Prices

**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. ( ±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
216961CR	SKE10A-05	9-18V	+5V@2000mA	10W	2x1x0.44	5	0.3	1.0	50	\$33.95	\$30.55	\$26.95	\$24.55
217007CR	SKE10A-12	9-18V	+12V@840mA	10W	2x1x0.44	5	0.3	1.0	60	\$25.84 22.45	20.38	18.53	16.84
216979CR	SKE10A-15	9-18V	+15V@666mA	10W	2x1x0.44	5	0.3	1.0	60	33.95	30.55	26.95	24.55
220337CR	SKE10B-033	18-36V	+3.3V@2400mA	8W	2x1x0.44	5	0.3	0.5	50	33.95	30.55	26.95	24.55
216952CR	SKE10B-05	18-36V	+5V@2000mA	10W	2x1x0.44	5	0.3	0.5	50	33.95	30.55	26.95	24.55
217023CR	SKE10B-12	18-36V	+12V@840mA	10W	2x1x0.44	5	0.3	0.5	60	33.95	30.55	26.95	24.55
216995CR	SKE10B-15	18-36V	+15V@666mA	10W	2x1x0.44	5	0.3	0.5	60	\$25.84 22.45	20.38	18.53	16.84
220345CR	SKE10C-033	36-72V	+3.3V@2400mA	8W	2x1x0.44	5	0.3	0.5	50	25.99	23.39	21.05	18.95
216944CR	SKE10C-05	36-72V	+5V@2000mA	10W	2x1x0.44	5	0.3	1.0	50	33.95	30.56	24.44	18.33
217015CR	SKE10C-12	36-72V	+12V@840mA	10W	2x1x0.44	5	0.3	1.0	60	\$25.78 22.35	20.31	18.46	16.78
216987CR	SKE10C-15	36-72V	+15V@666mA	10W	2x1x0.44	5	0.3	1.0	60	\$25.84 22.45	20.38	18.53	16.84
217031CR	DKE10A-05	9-18V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	34.95	31.45	27.95	25.45
217091CR	DKE10A-12	9-18V	+12V@420mA; -12V@420mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217111CR	DKE10A-15	9-18V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217058CR	DKE10B-05	18-36V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	\$27.12 23.75	21.58	19.62	17.83
217082CR	DKE10B-12	18-36V	+12V@420mA; -12V@420mA	10W	2x1x0.44	5	0.3	0.5	60	\$27.12 23.75	21.58	19.62	17.83
217074CR	DKE10B-15	18-36V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.45	27.95	25.45
217040CR	DKE10C-05	36-72V	+5V@1000mA; -5V@1000mA	10W	2x1x0.44	5	0.3	0.5	50	\$27.12 23.75	21.58	19.62	17.83
217103CR	DKE10C-12	36-72V	+12V@420mA; -12V@420mA	10W	2x1x0.44	5	0.3	0.5	60	34.95	31.46	25.16	18.87
217066CR	DKE10C-15	36-72V	+15V@333mA; -15V@333mA	10W	2x1x0.44	5	0.3	0.5	60	\$27.12 23.75	21.58	19.62	17.83

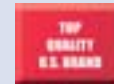
## 15-Watt Open Frame

- Isolation voltage: 1500VDC
- Protection: over-voltage & over-current
- Two-year warranty
- No minimum load

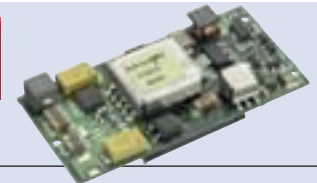
- Industry standard footprint
- 100% burn-in test
- Remote ON/OFF
- Output trim
- Working temperature: -40° to +65°C

ARTESYN  
TECHNOLOGIES

**SALE**



New Lower Prices



Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price				
			Voltage@Current	Power						1	10	25	100	
219070CR	CXE15-48S1V8	33-75V	+1.8V@6000mA	10.8W	2x1x0.35	6	0.3	2.0	40	\$42.49	37.13	\$33.76	\$30.69	\$27.90
219088CR	CXE15-48S2V5	33-75V	+2.5V@6000mA	15W	2x1x0.35	6	0.3	1.5	40	\$42.49	37.13	33.76	30.69	27.90
219053CR	CXE15-48S3V3	33-75V	+3.3V@4500mA	15W	2x1x0.35	6	0.1	0.5	70	\$42.49	36.28	32.98	29.99	27.26
219061CR	CXE15-48S05V	33-75V	+5V@3000mA	15W	2x1x0.35	6	0.1	0.5	70	\$42.49	37.13	33.76	30.69	27.90

## 15-Watt Encapsulated

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Free-air convection cooling
- 2:1 wide input range

- Input filter: Pi network
- Shielded metal case
- Working temperature: -15° to +60°C
- One-year warranty



**SALE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
155715CR	SKE15A-05	9-18V	+5V@3000mA	15W	2x2x0.43	5	0.3	0.5	50	\$34.95	\$31.49	\$28.15	\$25.35
155707CR	SKE15A-12	9-18V	+12V@1250mA	15W	2x2x0.43	5	0.3	0.5	60	34.95	31.19	28.15	25.35
155694CR	SKE15A-24	9-18V	+24V@625mA	15W	2x2x0.43	5	0.3	0.5	80	34.95	31.49	28.15	25.35
213276CR	SKE15B-05	18-36V	+5V@3000mA	15W	2x2x0.43	5	0.3	0.5	50	34.95	31.49	28.15	25.35
213284CR	SKE15B-12	18-36V	+12V@1250mA	15W	2x2x0.43	5	0.3	0.5	60	34.95	31.49	28.15	25.35
161728CR	DKE15A-12	9-18V	+12V@625mA; -12V@625mA	15W	2x2x0.43	5	0.3	0.5	60	35.95	32.35	29.15	24.25
213292CR	DKE15A-24	9-18V	+24V@313mA; -24V@313mA	15W	2x2x0.43	5	0.3	0.5	80	32.95	29.69	26.90	24.05
217154CR	DKE15C-15	36-72V	+15V@500mA; -15V@500mA	15W	2x2x0.43	5	0.3	0.5	60	\$26.20	22.95	20.86	18.96
												17.24	

## 30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back! Details on page 239.



# 20 to 30-Watt Isolated DC-to-DC Converters

Color Code Legend  
New Sale Qty Save Closeout

## 20-Watt Open Frame

- Isolation voltage: 1500VDC
- Remote ON/OFF
- Output trim
- Working temperature: -40° to +60°C (see www.Jameco.com)
- Industry standard footprint
- 4:1 input voltage range
- Protection: over-voltage, over-temperature & short-circuit
- Two-year warranty
- 100% burn-in test
- No minimum load

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TECHNOLOGIES

Other Versions  
Available: Call  
800-831-4242



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U.S. BRANDS

SALE

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. ( ±%)	Ripple & Noise (mV p-p)	Price				
			Voltage@Current	Power						1	10	25	100	
219109CR	CXA20-48S3V3	18-75V	+3.3V@6000mA	19.8W	2x1.6x0.41	8	0.1	0.2	75	\$49.05	\$41.52	\$37.74	\$34.31	\$31.19
219096CR	CXA20-48S05	18-75V	+5V@4000mA	20.0W	2x1.6x0.41	8	0.1	0.1	75	\$49.05	\$45.61	\$41.46	\$37.69	\$34.26

## 20-Watt Encapsulated

- Isolation voltage: 1000VDC
- Industry standard package
- Free-air convection cooling
- One-year warranty
- Output trim
- Shielded metal case
- Input filter: Pi network
- Protection: short-circuit & overload
- Working temp.: -40° to +71°C
- 100% burn-in test

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PERFORMANCE  
AT VALUE  
PRICES

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
217630CR	DKB20A-05	9-18V	+5V@2000mA; -5V@2000mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$44.95	\$40.49	\$36.45	\$32.79
217584CR	DKB20A-12	9-18V	+12V@833mA; -12V@833mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$33.08	\$30.07	\$27.34
217621CR	DKB20A-15	9-18V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$33.09	\$30.07	\$27.34
217592CR	DKB20B-12	18-36V	+12V@833mA; -12V@833mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$32.99	\$29.99	\$27.26
217605CR	DKB20B-15	18-36V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$33.00	\$30.00	\$27.27
217576CR	DKB20C-12	36-72V	+12V@833mA; -12V@833mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$33.08	\$30.07	\$27.34
217613CR	DKB20C-15	36-72V	+15V@667mA; -15V@667mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$36.60	\$33.08	\$30.07	\$27.34
217656CR	TKB20A-B	9-18V	+5V@2500mA; ±12V@310mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$37.78	\$34.84	\$31.67	\$28.79
217664CR	TKB20B-B	18-36V	+5V@2500mA; ±12V@310mA	20W	1.2x2x0.82	8	0.2	0.2	100	\$37.78	\$34.65	\$31.50	\$28.64
217672CR	TKB20B-C	18-36V	+5V@2500mA; ±15V@250mA	20W	1.2x2x0.82	8	0.2	0.2	100	37.78	34.34	31.22	28.38
217648CR	TKB20C-B	36-72V	+5V@2500mA; ±12V@310mA	20W	1.2x2x0.82	8	0.2	0.2	100	37.78	33.99	31.25	29.89

## 25-Watt Enclosed

- Isolation voltage: 500VDC
- 2:1 wide input range
- Working temperature: -10° to +60°C
- Protection: short-circuit, overload and over-voltage
- Input filter: Pi-network
- Shielded metal case
- 100% burn-in test
- Free-air convection cooling
- 105°C output capacitor
- One-year warranty

Other Versions  
Available: Call  
800-831-4242

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MICRO WELLS



PERFORMANCE  
AT VALUE  
PRICES

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
175661CR	SD-25A-5	9-18V	+5V@5000mA	25W	see www.Jameco.com	5	0.5	0.5	100	\$40.95	\$30.99	\$28.99	\$24.99
175804CR	SD-25A-12	9-18V	+12V@2100mA	25.2W	see www.Jameco.com	5	0.3	0.3	120	37.95	34.16	27.32	20.49
175812CR	SD-25A-24	9-18V	+24V@1100mA	26.4W	see www.Jameco.com	5	0.2	0.2	150	40.95	30.99	28.99	24.99

## 30-Watt Encapsulated

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Shielded metal case
- Working temperature: -40° to +71°C
- Input filter: Pi-network
- 2:1 wide input range
- Remote ON/OFF
- Output trim
- Switching frequency: 100kHz
- 100% burn-in test
- One-year warranty

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PERFORMANCE  
AT VALUE  
PRICES

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price				
			Voltage@Current	Power						1	10	25	100	
217701CR	DKA30A-12	9-18V	±12V@1250mA	30W	2x2x0.82	8	0.2	0.2	100	\$48.02	\$40.55	\$36.83	\$33.48	\$30.44
218544CR	DKA30B-12	18-36V	±12V@1250mA	30W	2x2x0.82	8	0.2	0.2	100	49.49	44.54	40.08	36.08	
217699CR	DKA30C-12	36-72V	±12V@1250mA	30W	2x2x0.82	8	0.2	0.2	100	\$48.02	40.55	36.83	33.48	30.44
217736CR	TKA30A-B	9-18V	+5V@3500mA; ±12V@310mA	25W	2x2x0.82	8	0.2	0.2	100	\$51.46	43.45	39.47	35.88	32.62
217728CR	TKA30B-C	18-36V	+5V@3500mA; ±15V@250mA	25W	2x2x0.82	8	0.2	0.2	100	\$51.46	43.45	39.47	35.88	32.62
217681CR	TKA30C-B	36-72V	+5V@3500mA; ±12V@310mA	25W	2x2x0.82	8	0.2	0.2	100	\$51.46	43.45	39.47	35.88	32.62

## Corporate Customers

Opening an account is easy!! Call 1-800-831-4242 for details today.

## 30-Watt Encapsulated

- Isolation voltage: 1000VDC
- 2:1 wide input range
- Working temperature: -25° to +85°C
- One-year warranty

- Input filter: PI-network
- Shielded metal case
- 100% burn-in test

- Protection: short-circuit, overload & over-voltage
- Remote ON/OFF
- Output trim



**SALE**

**New Lower Prices**



Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. (±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
217234CR	SDM30-12S12	9-18V	+12V@2100mA	25.2W	2x1.8x0.62	8	1.0	1.0	100	\$34.95	\$31.77	\$28.88	\$26.26
217242CR	SDM30-24S12	18-36V	+12V@2500mA	30W	2x1.8x0.62	8	1.0	1.0	100	45.95	41.35	37.25	33.55
217171CR	SDM30-24S15	18-36V	+15V@2000mA	30W	2x1.8x0.62	8	1.0	1.0	100	\$35.06	\$30.25	\$27.51	\$25.01
217226CR	SDM30-48S05	36-72V	+5V@5000mA	25W	2x1.8x0.62	8	1.0	1.0	100	\$35.59	\$31.05	\$28.24	\$25.67
217251CR	SDM30-48S12	36-72V	+12V@2500mA	30W	2x1.8x0.62	8	1.0	1.0	100	\$35.06	\$30.25	\$27.51	\$25.01
217197CR	SDM30-48S15	36-72V	+15V@2000mA	30W	2x1.8x0.62	8	1.0	1.0	100	\$35.92	\$30.35	\$27.59	\$25.08

## 60-Watt Open Frame

- Isolation voltage: 1500VDC
- 100% burn-in test
- Protection: short-circuit, over-current & over-voltage

- Remote ON/OFF
- Working temperature: -40 to +100°C

- No minimum load
- Output trim
- Two-year warranty

Other Versions Available: Call 800-831-4242



The EXQ60 delivers very high output current at low voltages, and excellent useable power density for today's high-end applications. The models offered feature an input voltage range of 33 to 75VDC and are available in output voltages of 2.5V/3.3V and 3.3V/5V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. Typical efficiencies for the models are 90% for the 2.5V/3.3V and 91% for the 3.3V/5V versions. Over-current and over-voltage protection features are included as standard. With full international safety approval including EN60950 and UL1950, the EXQ60 reduces compliance cost and time to market.

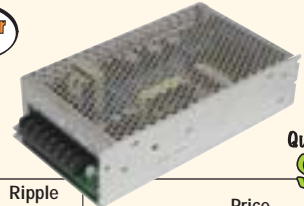
Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power				1	10	25	100
218894CR	EXQ60-48D3V3-2V5-R	33-75V	+2.5V@16A; +3.3V@12A	40W	2.3x1.5x0.5	7	60	\$110.06	\$100.06	\$90.96	\$82.69
218907CR	EXQ60-48D05-3V3-R	33-75V	+3.3V@15A; +5V@12A	60W	2.3x1.5x0.5	7	60	109.91	99.92	90.84	82.58

## 50, 100 & 150-Watt Enclosed

- Isolation voltage: 1500VDC
- One-year warranty
- 2:1 wide input range
- 105°C output capacitor
- Mounting hardware: use P/Ns 222156CR & 222172CR; see www.Jameco.com for specifications

- Input filter: PI-network
- Shielded metal case
- Working temperature: -10° to +60°C
- Protection: short-circuit, overload & over-voltage
- 100% burn-in test
- Free-air convection cooling

**New Lower Prices**



**Quantity SAVE**

Jameco Part No.	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Line Reg. (±%)	Load Reg. ( ±%)	Ripple & Noise (mV p-p)	Price			
			Voltage@Current	Power						1	10	25	100
212548CR	SD-50A-5	9-18V	+5V@10A	50W	see www.Jameco.com	5	0.5	0.5	100	\$35.79	\$32.53	\$29.58	\$26.89
212530CR	SD-50B-12	19-36V	+12V@4.2A	50.4W	see www.Jameco.com	5	0.3	0.3	120	51.95	46.76	37.40	28.05
212513CR	SD-50B-24	19-36V	+24V@2.1A	50.4W	see www.Jameco.com	5	0.2	0.2	150	35.79	32.21	25.77	19.33
216602CR	SD-50C-5	36-72V	+5V@10A	50W	see www.Jameco.com	5	0.5	0.5	100	30.63	27.85	25.32	23.02
212505CR	SD-50C-12	36-72V	+12V@4.2A	50.4W	see www.Jameco.com	5	0.3	0.3	120	51.95	39.99	36.99	32.99
212492CR	SD-50C-24	36-72V	+24V@2.1A	50.4W	see www.Jameco.com	5	0.2	0.2	150	47.95	43.16	34.52	25.89
212476CR	SD-100B-5	19-36V	+5V@20A	100W	see www.Jameco.com	7	0.5	0.5	100	44.35	40.29	36.63	33.30
216565CR	SD-100B-12	19-36V	+12V@8.5A	102W	see www.Jameco.com	7	0.3	0.3	120	72.95	65.66	52.52	39.39
212484CR	SD-100C-5	36-72V	+5V@20A	100W	see www.Jameco.com	7	0.5	0.5	100	47.19	42.91	39.00	35.46
212468CR	SD-100C-12	36-72V	+12V@8.5A	102W	see www.Jameco.com	7	0.3	0.3	120	63.95	53.99	50.99	44.99
217269CR	SD-150B-12	19-36V	+12V@12.5A	150W	see www.Jameco.com	7	0.5	0.5	120	82.95	70.99	65.99	57.99

## Special Offers at Great Savings – 90-Day Warranty

Jameco Part No.	Manufacturer	Manufacturer Product Number	Input Range	Output		Size Inches (LxWxH)	Pins	Ripple & Noise (mV p-p)	Line Reg. (%)	Load Reg. (%)	Temp. °C	Price				
				Voltage@Current	Power							1	10	25	100	
206113CR	Datel	BCP-5/15-3.3/15-D48	36-75V	+3.3V@15A; +5V@15A	75W	2.3x2.4x0.5	10	50	0.2	0.5	-40 to +45	\$13.42	\$10.45	\$9.50	\$8.64	\$7.86
206041CR	Power Cube	PD150-048-05-PC	36-76V	+5V@30A	150W	2.3x2.4x0.5	9	50	0.05	0.05	-20 to +100	\$15.85	11.69	10.60	9.64	8.76
206121CR	Lambda	PH300F-280-3	200-400V	+3V@60A	180W	5.8x3.4x0.5	12	100	0.4	0.8	-20 to +85	\$17.31	12.39	11.27	10.24	9.31

**We'll Send It Today!**

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# AC-to-DC Regulated Switching Table-Top Power Supplies

Color Code Legend  
New Sale Qty. Save Closeout

**Quantity**  
**SAVE**

See page 157 for International Power Cords

We will change any power plug (pg 100) on any table-top power supply (100 pc. minimum).


**SALE**




237059CR



230498CR




206455CR





159353CR




243011CR

Polarity 1  (center negative)

Female 

Male 

Polarity 2  (center positive)

DIN M 

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
2-Wire AC Input – Regulated Switching																	
12-24 Watt	221591CR	Mean Well	P30B-0P2JU	12	+3.3/3.6	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	<del>\$18.95</del> \$17.99	\$16.35	\$14.86	\$13.51
	237059CR	Cisco	ADP-12GB	12.5	+5/2.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	3.5 x 2.3 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	14.95	13.49	10.79	8.09
	249050CR	Phihong	PSA15W-050	12.5	+5/2.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.3 x 2.6 x 1.0	6'/3	0.4	UL/CSA/TUV/CE	19.49	17.75	16.39	14.55
	211300CR	Horizon	SSL20-7605	20	+5/4.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.3 x 1.0	6'/3	1.5	UL/CSA/DE/CE	24.95	22.46	17.96	13.11
	221604CR	Mean Well	P30B-1P2JU	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	<del>\$22.95</del> 19.95	18.12	16.47	14.97
	195805CR	Horizon	DCR920F12	18	+9/2.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	195768CR	Horizon	DCR920F52	18	+9/2.0	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	249041CR	Phihong	PSA15W-120	15	+12/1.25	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	4.3 x 2.6 x 1.0	6'/3	0.3	UL/CSA/TUV/CE	19.49	17.75	16.39	14.55
	242958CR	Mean Well	G15B-3P2JR15	15	+12/1.3	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.6	6'/3	0.5	UL/CSA/TUV/CE	19.49	17.69	16.39	14.51
	221840CR	Mean Well	P15B-4P2JR	15	+15/1.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	13.65	12.95	12.35	11.69
	211174CR	Horizon	SC102TA1503	18	+15/1.2	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.4	6'/3	0.5	UL/CUL/TUV/CE	19.95	17.95	16.16	14.54
	221858CR	Mean Well	P15B-6PJU	15	+24/0.6	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	3.6 x 1.6 x 1.5	6'/6'	0.5	UL/CUL/TUV/CE	<del>\$19.49</del> 17.95	16.16	14.54	13.09
196138CR	DVE	DSA-0283A	23	+5/1, +12/1.49 -5/4.3	100-240@47-63	5-pin DIN M	No	Black	4.9 x 2.7 x 1.5	6'/3	0.8	UL/CSA/TUV	16.95	15.25	12.19	9.15	
25-65 Watt	220311CR	Horizon	SL120300	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.0 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	29.95	26.96	21.56	16.17
	220441CR	Horizon	SL120300RT	36	+12/3.0	100-240@50-60	2.5mm x 5.5mm F 2†	Yes	Black	4.3 x 2.0 x 1.2	6'/3	0.6	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	224055CR	Horizon	SL120300-4.5	36	+12/3.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.0 x 1.2	4.5'/3	0.6	UL/CUL/TUV/CE	29.95	26.96	21.56	16.17
	230498CR	Phihong	PSA60W-120	50	+12/4.2	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	230501CR	Phihong	PSA60W-180	60	+18/3.3	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	221612CR	Mean Well	P30B-6P2JU	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	25.95	23.35	20.99	18.99
	229841CR	Phihong	PSA60W-240	60	+24/2.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 2.5 x 1.3	6'/3	0.5	UL/CUL/TUV/CE	36.49	32.85	29.55	29.55
	288534CR	EOS	ZVC65SG2410	65	+24/2.7	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.2 x 1.7 x 1.2	4'/3	0.4	UL/CUL/CE/DE	31.95	29.26	27.80	26.41
	205911CR	Delta	ADP-25HB	25	+30/0.83	100-125@50-60	2.1mm x 5.5mm F 2	No	Black	3.5 x 2.4 x 1.2	6'/7'	1.1	UL/CUL	17.49	15.75	12.59	9.45
3-Wire AC Input – Regulated Switching																	
10-20 Watt	221671CR	Mean Well	P30A-0P2JU	12	+3.3/3.6	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	<del>\$26.95</del> \$21.91	\$19.92	\$18.11	\$16.46
	221567CR	Mean Well	P40A-0P2JU	15	+3.3/4.5	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	29.95	26.99	24.29	21.85
	196218CR	GlobeTek	GT210891005T3	10	+5/2.0	120-240@50-60	2.1mm x 5.5mm F 2	No	Black	3.4 x 1.9 x 1.3	6'/2	0.4	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	305154CR	Mean Well	G15-IP2JU	12	+5/2.4	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.3	6'/6'	0.4	UL/CUL/TUV/CE	17.85	16.53	15.58	14.63
	221786CR	Mean Well	U24S102-P2JU	15	+5/3.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.2	6'/6'	0.8	UL/CUL/TUV/CE	23.95	21.55	19.39	17.45
	228996CR	Phihong	PSA31U-050	20	+5/4.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	155205CR	Mean Well	KA52A	20	+5/4.0	100-240@47-63	2.1mm x 5.5mm F 2	No	Black	4.1 x 2.6 x 1.6	6'/6'	1.2	UL/CSA/TUV	29.95	26.96	23.19	19.39
	213583CR	Mean Well	P30A-1P2JU	20	+5/4.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	303538CR	I.T.E.	UP01411120	12	+12/1.0	100-250@50-60	2.5mm x 5.5mm F 2	No	Black	4.1 x 2.5 x 1.3	4'/2	0.4	UL/CSA/TUV/CE	16.75	13.37	11.70	11.14
	228988CR	Phihong	PSA18U-120	18	+12/1.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.2 x 1.2	6'/2	0.5	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216549CR	Mean Well	KWM020-1812F	18	+12/1.5	100-240@47-63	2.1mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/6'	0.4	UL/CUL/TUV/CE	22.95	20.65	18.59	16.75
	216531CR	Mean Well	KWM12F-P2MU	18	+12/1.5	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.0 x 1.9 x 1.5	6'/6'	0.4	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	298062CR	I.T.E.	UP01831120	18	+12/1.5	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	3.7 x 2.2 x 1.3	7'/2	0.4	UL/CUL/CE	15.45	12.21	10.68	10.17
	303546CR	I.T.E.	UP01811180	18	+18/1.5	100-250@50-60	2.1mm x 5.5mm F 2	No	Black	4.1 x 2.5 x 1.3	4'/2	0.4	UL/CSA/TUV/CE	19.55	17.96	16.70	15.44
21-29 Watt	243002CR	Mean Well	G15A-6P2JU	15	+24/0.6	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.3 x 1.3	6'/6'	0.4	UL/CUL/TUV/CE	19.95	17.95	16.15	14.55
	159353CR	Mean Well	KA60AU	17	+5/1, +12/0.5	100-240@50-60	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.5	6'/5'	1.0	UL/CSA/TUV	36.95	33.29	29.95	26.95
	213575CR	Mean Well	P40A-1P2JU	25	+5/5.0	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/TUV/CE	29.95	26.96	21.56	17.01
	211019CR	Mean Well	KA52B	25	+9/2.78	100-240@47-63	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/2	0.9	UL/CSA/TUV/CE	29.95	26.96	21.56	16.17
	211027CR	Mean Well	KA52BMOD	25	+9/2.78	100-240@47-63	2.1mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/2	0.9	UL/CSA/TUV/CE	17.85	16.07	12.85	9.64
	243011CR	Mean Well	P30A-41P2JU	27	+15/1.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.2 x 2.6 x 1.4	6'/2	0.8	UL/CUL/TUV/CE	25.95	23.39	21.05	18.95
	206455CR	Ault	SC100	25	+16/1.56	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	4.2 x 2.6 x 1.5	6'/6'	1.2	UL/CUL/TUV/CE	17.95	16.16	12.92	9.69
	221680CR	Mean Well	P30A-6P2JU	27	+24/1.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	26.95	24.29	21.85	19.65
	215087CR	Mean Well	P30A-8P2J	27	+48/0.56	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CSA/TUV/CE	<del>\$21.85</del> 19.95	18.03	16.39	14.90
	215079CR	Mean Well	P30A-8P2MU	27	+48/0.56	100-240@50-60	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CSA/TUV/CE	<del>\$22.00</del> 19.95	18.11	16.46	14.97
196269CR	Everglow	PSU25A13	25	+5/2.5, +12/1.0	100-240@47-63	4-pin mini DIN M	No	Black	4.2 x 2.6 x 1.4	6'/4'	1.2	UL/CUL/TUV/CE	27.95	25.19	22.65	20.39	
221751CR	Mean Well	P25A13-1R1BU	25	+5/2.5, +12/1.0	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CSA/TUV/CE	27.95	25.19	22.69	20.39	

\* See accessory table-top power cord chart on page 148 when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord  
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco and GlobTek

† Right angle

3-Wire Table-Top Power Supplies Continued on Page 147



# AC-to-DC Regulated Switching Table-Top Power Supplies

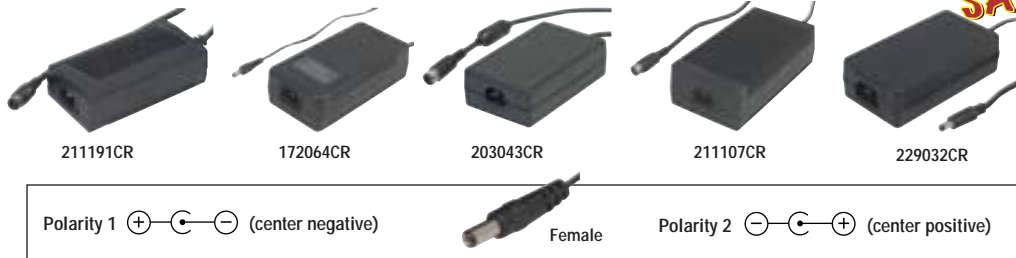
We will change any power plug (pg 100) on any table-top power supply (100 pc. minimum).

**SALE**



See page 157 for  
International  
Power Cords

Quantity  
**SAVE**



Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
3-Wire AC Input – Regulated Switching (Continued)																	
21-29 Watt (cont'd)	189561CR	Phihong	PSM-3012G	26	+5/4, +12/0.5	100-240@50-60	5-pin mini DIN M	Yes	Beige	5.8 x 2.9 x 1.6	6'/1	1.3	UL/CSA	\$6.25	\$5.62	\$4.50	\$3.38
	190650CR	Ault	SW300	25	+5/4, +12/1.0	100-250@50-60	5-pin DIN M	No	Black	5.9 x 3.4 x 2.1	6'/2	1.5	UL/CSA/TUV	8.83	7.95	6.35	4.79
	221760CR	Mean Well	P25A14-R1BU	25	+5/2.5, +15/0.8	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	24.15	21.73	19.56	17.60
	190959CR	Mean Well	P25A13D-R1U	26	+5/2.5, +12/0.8 -12/0.3	100-240@47-63	5-pin DIN M	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	1.1	CUL/TUV/CE	32.95	29.69	26.69	24.05
	221719CR	Mean Well	P25A14E-R1BU	25	+5/2.5, +15/0.3 -15/0.3	90-264@47-63	5-pin DIN M	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	32.95	29.69	26.69	24.05
30-40 Watt	221516CR	Mean Well	U45S102-P2JU	40	+5/8.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.4	UL/CUL/TUV/CE	37.95	34.19	30.79	27.69
	206527CR	Mean Well	P40A-1-1P25U	30	+7.5/4.0	100-240@50-60	2.1mm x 5.5mm F 2	No	Black	4.3 x 2.7 x 1.5	6'/6'	1.5	UL/CUL/TUV/CE	29.95	26.95	23.95	21.95
	229008CR	Phihong	PSA31U-120	30	+12/2.5	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	155213CR	Mean Well	P40A-3P2JU	40	+12/3.3	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/TUV	35.95	32.36	29.12	26.21
	297692CR	Mean Well	P40A-3P2MU	40	+12/3.3	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/VDE/CE	35.95	32.36	29.12	26.21
	229016CR	Phihong	PSA31U-150	30	+15/2.0	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	206471CR	Mean Well	P40A-4AR01U	30	+15/2.0	100-240@50-60	2.5mm x 5.5mm F 2	No	Black	5.6 x 2.9 x 1.6	6'/6'	1.2	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	221575CR	Mean Well	P40A-4P2JU	40	+15/2.7	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	33.95	30.56	27.50	24.75
	230480CR	Phihong	PSA31U-180	30	+18/1.6	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	3.9 x 2.2 x 1.2	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	21.85
	229024CR	Phihong	PSA31U-240	30	+24/1.25	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.4	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
	181884CR	Mean Well	P40A-6P2JU	40	+24/1.7	100-240@50-60	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	35.95	32.36	29.12	26.21
	297756CR	Mean Well	P40A-6P2MU	40	+24/1.7	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.7	UL/CUL/VDE/CE	35.95	32.36	29.12	26.21
	229032CR	Phihong	PSA31U-480	30	+48/0.63	90-264@47-63	2.1mm x 5.5mm F 2	No	Black	4.5 x 2.4 x 1.6	6'/2	0.5	UL/CUL/TUV/CE	26.95	24.25	21.85	19.65
221583CR	Mean Well	P40A-8P2JU	40	+48/0.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.8	UL/CUL/TUV/CE	33.95	30.56	24.44	18.33	
211191CR	Westinghouse	FSA30P31	30	+5/3, ±12/0.8	85-264@47-63	5-pin DIN M	No	Black	5.8 x 3.0 x 1.7	4'/2	1.1	UL/CSA/TUV	25.95	23.35	18.68	14.01	
203043CR	Ault	SC200	32	+5/4, +12/1	100-240@50-60	5-pin DIN M	No	Black	5.0 x 3.0 x 1.6	6'/2	1.3	UL/CSA/CE	19.95	17.95	14.36	10.77	
41-49 Watt	221524CR	Mean Well	U45S105-P2JU	45	+12/3.8	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221532CR	Mean Well	U45S106-P2JU	45	+15/3.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221508CR	Mean Well	L60A24-P1JU	48	+24/2.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	4.3 x 2.4 x 1.2	6'/6'	0.8	UL/CUL/TUV/CE	32.95	29.66	26.69	24.02
	221559CR	Mean Well	U45S111-P2JU	48	+48/1.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CUL/TUV/CE	37.95	34.15	30.75	27.65
	215132CR	Mean Well	U45T302-R1BU	42	+5/5, +12/1, -12/0.3	90-264@47-63	5-pin DIN M	Yes	Black	5.8 x 3.1 x 1.8	4'/6'	1.4	UL/CUL/TUV/CE	49.95	44.99	40.49	36.45
	211107CR	Fortron	FSA55P31	45	+5/5, +12/3 -12/0.5	85-264@50-60	5-pin DIN M	Yes	Black	7.0 x 3.8 x 2.2	4'/2	1.6	UL/CSA/TUV	49.95	44.96	35.96	26.24
	237366CR	Mean Well	P50A14E-R1BU	42	+5/3.5, +15/1.2 -15/0.3	100-240@47-63	5-pin DIN M	Yes	Black	5.8 x 3.0 x 1.7	4'/6'	1.2	UL/CUL/TUV/CE	36.95	33.25	29.95	26.95
50-59 W	221487CR	Mean Well	SPU50-1U	50	+5/10	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	2.0	UL/CUL/TUV/CE	36.95	33.95	31.95	29.49
	221541CR	Mean Well	U45S108-P2JU	50	+24/2.1	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV/CE	37.95	34.15	30.75	27.65
	221701CR	Mean Well	P50A13D-R1BU	50	+5/4.0, +12/2.0 -12/0.5	90-264@47-63	5-pin DIN M	Yes	Black	5.7 x 3.0 x 1.7	4'/6'	1.5	UL/CUL/TUV/CE	48.95	44.09	39.69	35.69
60-80 Watt	155230CR	Mean Well	SPU50-3U	60	+12/5.0	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95
	297721CR	Mean Well	SPU50-3P2MU	60	+12/5.0	90-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CUL/TUV/CE	49.95	44.95	39.95	35.95
	182959CR	Elpac	W7212	72	+12/6.0	95-250@47-63	5-pin DIN F		Black	6.2 x 3.8 x 2.6	6'/6'	2.5	UL/CSA/CE	54.95	49.49	39.59	29.69
	221428CR	Mean Well	U65S105-P2JU	80	+12/6.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	46.76	35.07
	221479CR	Mean Well	SPU50-4U	60	+15/4.0	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	2.0	UL/CUL/TUV/CE	38.49	34.65	31.19	28.09
	221436CR	Mean Well	U65S106-P2JU	80	+15/5.33	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	243045CR	Mean Well	P66A-5P2JU	66	+18/3.66	90-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.8 x 3.0 x 1.7	6'/6'	1.2	UL/CUL/TUV/CE	38.49	34.91	32.21	29.55
	221444CR	Mean Well	U65S107-P2JU	80	+18/4.4	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	161605CR	Mean Well	SPU50-6U	60	+24/2.5	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.6	1'9'/6'	1.3	UL/CSA/TUV	44.95	39.95	35.95	32.95
	297633CR	Mean Well	SPU50-6P2MU	60	+24/2.5	95-264@47-63	2.5mm x 5.5mm F 2	Yes	Black	5.7 x 3.0 x 1.7	6'/6'	1.3	UL/CUL/TUV/CE	44.95	39.95	35.95	32.95
	221452CR	Mean Well	U65S108-P2JU	80	+24/3.3	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49
	172064CR	Mean Well	SPU50-9U	60	+48/1.25	100-240@47-63	2.1mm x 5.5mm F 2	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	44.95	40.49	36.45	32.79
	221461CR	Mean Well	U65S111-P2JU	80	+48/1.7	95-264@47-63	2.1mm x 5.5mm F 2	Yes	Black	6.6 x 3.1 x 1.8	6'/6'	2.0	UL/CUL/TUV/CE	64.95	55.29	49.95	47.49

\* See accessory table-top power cord chart on page 148 when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord  
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco and GlobTek

Sale items highlighted in yellow

**Jameco Special Values!**

Great quantity discounts highlighted in green.

# AC-to-DC Regulated Linear Table-Top Power Supplies

Color Code Legend  
New Sale Qty Save Closeout

We will change any power plug (pg 100) on any table-top power supply (100 pc. minimum).

See page 157 for International Power Cords



DIN M



Stripped



211060CR



174852CR



265295CR



243088CR



240127CR



Quantity  
**SAVE**

Polarity 1  $\oplus$   $\ominus$   $\ominus$  (center negative)

Female

Male

Polarity 2  $\ominus$   $\oplus$   $\oplus$  (center positive)

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Cords* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing			
				Pwr (W)	Volts (VDC)/ Current (A)									1	10	50	100
2-Wire AC Input – Regulated Linear																	
5-25 Watts	211060CR	Pacific Data	DV-51AAT	5	+5/1	120@60	2.1mm x 5.5mm rt angle F 2	No	Black	3.4 x 2.7 x 2.2	6'6'6"	1.7	UL/CSA	\$11.95	\$10.76	\$8.60	\$6.45
	174844CR	Jameco	DCR2410F12	24	+24/1	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.0 x 2.5	6'6'	2.6	—	16.95	15.25	12.19	9.15
	174852CR	Jameco	DCR2410F52	24	+24/1	120@60	2.5mm x 5.5mm F 2	No	Black	4.4 x 3.0 x 2.5	6'6'	2.7	—	14.95	12.95	10.95	9.95
	103173CR	Jameco	JE9100	9	+5/0.6, ±12/0.25	120@50-60	5-pin DIN M	No	Black	4.8 x 3.1 x 2.5	6'6'	2.3	UL/CSA	20.95	18.89	16.99	14.95
3-Wire AC Input – Regulated Linear																	
5-20 Watts	265295CR	—	T5121000/37	12.2	+5/1, ±12/0.3	120@60	5-pin DIN M	No	Black	4.5 x 3.0 x 2.5	6'6"	2.6	UL/CSA	\$9.69	\$8.72	\$6.99	\$5.25
	154624CR	Motorola	5712-305-4C3E†	5.6	+5/0.5, ±12/0.13	120@60	8-pin mini DIN M	No	Black	2.9 x 2.6 x 1.9	6'1"2	1.2	UL/CSA	12.95	10.39	7.79	5.45
	243088CR	Regal	RJM-551228	17.4	+5/0.9, ±12/0.62 ±5/0.2 -28/0.16	120@60	6-pin DIN M	No	Black	5.9 x 3.6 x 2.6	6'6"	3.4	UL/CUL	16.95	15.25	12.19	9.15

† Wall-Mount \* See accessory table-top power cord chart below when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord

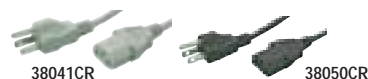
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco, and GlobTek

## AC-to-DC Unregulated Table-Top Power Supplies

Quantity  
**SAVE**

Power	Part Number	Brand ▲	Mfr. Cross Ref. No. ▲	Output		Input VAC@Hz	Output Connector ID x OD/Polarity F = female; M = male	Pwr. Ind.	Color	Size (L" x W" x H")	Length Cords (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing				
				Power (W)	Volts (VDC)/ Current (A)									1	10	50	100	
2-Wire AC Input – Unregulated																		
9-30 Watts	190051CR	APS	APS48EA114	10	+7/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.3 x 1.9	6'6'	1.9	UL/CUL	\$9.95	\$8.99	\$7.19	\$5.39	
	243109CR	Regal	JK-91001-N	9	+9/1.0	120@60	Stripped & Tinned	No	Black	3.3 x 2.2 x 1.9	6'6'	1.2	UL/CSA	17.95	16.19	12.95	9.69	
	203182CR	Brother	A71222D	25	+11.5/2.2	120@60	2.1mm x 5.5mm F 1	No	Black	4.1 x 2.8 x 2.2	6'6'	2.0	UL/CSA	\$11.95	5.45	4.92	4.47	4.07
	136565CR	Jameco	DDC1210P	12	+12/1.0	120@60	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'6'	1.2	—	13.95	12.56	10.04	7.53	
	140880CR	Jameco	DC1215ST	18	+12/1.5	120@60	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'6'	1.5	UL	12.95	11.66	10.49	9.44	
	143714CR	—	DC1220F1	24	+12/2.0	120@60	2.1mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'6'	2.2	—	14.95	13.46	10.76	8.07	
	143722CR	Jameco	DC1220F5	24	+12/2.0	120@60	2.5mm x 5.5mm F 2	No	Black	3.8 x 2.8 x 2.3	6'6'	2.2	—	12.95	11.69	10.55	9.49	
	143731CR	—	DC1220M3	24	+12/2.0	120@60	3.5mm M 2	No	Black	3.8 x 2.8 x 2.3	6'6'	1.9	—	12.95	11.49	9.39	6.99	
	220919CR	Jameco	EFU135170	23	+13.5/1.7	120@60	2.1mm x 5.5mm F 1	No	Black	3.4 x 2.7 x 2.1	6'6'	1.8	UL/CUL	\$11.54	8.19	7.45	6.78	6.16
	240127CR	—	FW3698	24	+24/1	120@60	2.5mm x 5.5mm F 2	No	Black	4.0 x 3.0 x 2.7	6'6'7'2"	2.5	—	14.79	13.29	11.99	9.95	
	139096CR	Jameco	DC2412F1	29	+24/1.2	120@60	2.1mm x 5.5mm F 2	No	Black	4.4 x 3.1 x 2.6	6'6'	2.5	—	14.95	13.49	12.15	10.95	
	173665CR	Skyнет	DND-3005	15	+30/0.5	120-127@60	2.5mm x 5.5mm F 2	No	Black	3.0 x 2.5 x 2.2	5'9'3'2"	1.4	UL/CUL	13.29	11.99	10.75	8.95	
205920CR	Skyнет	DND-3012	30	+30/1.0	120-127@50-60	2.5mm x 5.5mm F 2	No	Black	4.0 x 2.9 x 2.5	6'6'	1.7	UL/CUL	8.95	8.06	6.44	4.83		
3-Wire AC Input – Unregulated																		
15-25	157956CR	Everglow	EFU120150	18	+12/1.5	120@60	2.5mm x 5.5mm F 2	No	Black	3.4 x 2.7 x 2.2	6'6'	2.0	UL	\$10.95	\$9.86	\$7.88	\$5.91	
	196306CR	—	A51813D	23	+18/1.3	120@60	2.5mm x 5.5mm F 2	No	Black	3.6 x 2.4 x 2.0	6'6'	1.8	UL/CSA	12.95	11.69	9.34	7.04	

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco, and GlobTek



**\*\* Accessory Power Input Cords for Regulated Table-Top Power Supplies**

Quantity  
**SAVE**



Part No.	Ref. No.**	Description	Color	AWG	Certification	Cord Length	Wt. (lbs.)	Cord Type	1	10	100	250
38041CR	1	3-conductor power cord	Beige	18/3	UL/CSA	6'	0.4	SVT	\$3.49	\$3.15	\$2.79	\$2.49
38050CR	2	3-conductor power cord	Black	18/3	UL/CSA	6'	0.4	SVT	3.75	3.29	2.89	<b>2.17</b>
189587CR	3	2-conductor power cord	Black	18/2	UL/CSA	6'	0.3	SPT	2.95	2.65	2.25	<b>1.69</b>

For Additional Power Cords See Page 158.

GlobTek®

## AC-to-DC Medical Table-Top Regulated Switching Power Supplies

- Input voltage: 90-264VAC @ 47-63Hz
- 3-wire AC input
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Cord length (DC/AC): 6' / use P/N 38050CR
- Size: 2.9"L x 2.0"W x 1.6"H
- UL/CUL/TUV/CE approved for medical applications



Quantity  
**SAVE**



Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing			
				1	10	50	100
230658CR	TR9CA2600CP	13.0	+5/2.6	\$32.95	\$29.65	\$26.69	\$23.99
230682CR	TR9CE1250CP	15.6	+12/1.3	32.95	29.65	26.69	23.99
230691CR	TR9CG1200CP	18.0	+15/1.2	32.95	29.65	26.69	23.99
230711CR	TR9CI750CP	16.8	+24/0.7	32.95	29.65	26.69	23.99
230738CR	TR9CA6000LCP	30.0	+5/6.0	52.95	47.65	42.89	38.59
230762CR	TR9CE4000LCP	49.2	+12/4.0	52.95	47.65	42.89	38.59
230771CR	TR9CG3333LCP	49.5	+15/3.3	52.95	47.65	38.15	28.59
230797CR	TR9CI2100LCP	50.4	+24/2.1	52.95	47.65	42.89	38.59



GlobTek®

## AC-to-DC Medical Regulated Switching Wall Adapters

- Input voltage: 100/240VAC @ 47-63Hz
- 3-prong input plug
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Output cord length: 6'
- Size: 2.9"H x 1.9"W x 1.6"D
- Agency approval: UL/CUL/TUV/CE approved for medical applications



Part Number	Product Number	Power (W)	Output Volts (VDC)/Current (A)	Pricing			
				1	10	50	100
230818CR	WR92A2600LCP	13.0	+5@2.6	\$32.95	\$29.65	\$26.69	\$23.99
230842CR	WR92E1250LCP	15.6	+12@1.3	32.95	29.65	26.69	23.99
230851CR	WR92G1200LCP	18.0	+15@1.2	32.95	29.65	26.69	23.99
230877CR	WR92I750LCP	16.8	+24@0.75	32.95	29.65	26.69	23.99

For Open-Frame Medical Power Supplies see page 129.

## AC-to-DC Regulated Switching Wall Adapters

### Interchangeable Plug Wall Adapters

- Field changeable AC Plugs (sold separately, see below)
- Power-On LED
- Input voltage: 90-264VAC@47-63Hz
- Output connector: 2.1mm x 5.5mm female center positive

#### 4 to 5-Watt Wall Adapters (Plug clip required, see below)

- Applications: PDAs, digital cameras, MPEG players, personal electronics
- Dimensions: 2.8"L x 1.8"W x 1.2"H

- Regulated output
- Double Insulated
- Class B EMI



**SALE**

New Lower Prices



- Efficiency: 60% min.
- Weight: 0.3 lbs.

Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228734CR	Phihong	PSA05R-033	4.0	3.3	1.2	50	±1%	±5%	\$16.69	\$15.15	\$13.79	\$12.44
228742CR	Phihong	PSA05R-050	5.0	5.0	1.0	50	±1%	±5%	16.69	15.15	13.79	12.44
228751CR	Phihong	PSA05R-090	5.0	9.0	0.56	90	±1%	±5%	16.69	15.15	13.79	12.44
228769CR	Phihong	PSA05R-120	5.0	12.0	0.42	120	±1%	±5%	16.69	15.15	13.79	12.44

#### 6 to 10-Watt Wall Adapters (Plug clip required, see below)

- Applications: wireless communications, portable equipment, digital camera, peripherals, networking
- Dimensions: 3.4"L x 2.1"W x 1.4"H
- Weight: 0.3 lbs.

**SALE**

- Efficiency: 65% typical

New Lower Prices



Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228785CR	Phihong	PSA11R-033	6.6	3.3	2.0	50	±1%	±5%	\$17.69	\$16.07	\$15.15	\$14.24
228793CR	Phihong	PSA11R-050	10.0	5.0	2.0	50	±1%	±5%	17.69	16.07	15.15	14.24
228806CR	Phihong	PSA11R-090	10.0	9.0	1.1	90	±1%	±5%	17.69	16.07	15.15	14.24
228814CR	Phihong	PSA11R-120	10.0	12.0	0.83	120	±1%	±5%	17.69	16.07	15.15	14.24
228822CR	Phihong	PSA11R-150	10.0	15.0	0.67	150	±1%	±5%	17.69	16.07	15.15	14.24
228777CR	Phihong	PSA11R-240	10.0	24.0	0.42	240	±1%	±5%	17.69	16.07	15.15	14.24

#### 15 to 20-Watt Wall Adapters with LoadSense™ (Plug clip required, see below)

- Senses and controls the voltage out the connector, eliminating the effect of a voltage drop in the cable
- Applications: peripherals, portable equipment, gaming machines, point-of-sale equipment, network equipment
- Dimensions: 3.9"L x 2.5"W x 1.4"H
- Weight: 0.6 lbs.

**SALE**

- Efficiency: 70% Typical

New Lower Prices



Part No.	Manufacturer	Product No.	Power (W)	Output Voltage (VDC)	Current (A)	Ripple (mVp-p)	Line Regulation	Load Regulation	1	5	25	100
228831CR	Phihong	PSA21R-050	15.0	5.0	3.0	50	±1%	±2%	\$27.15	\$24.65	\$23.32	\$21.99
228849CR	Phihong	PSA21R-120	20.0	12.0	1.67	120	±1%	±2%	27.15	24.65	23.32	21.99
228857CR	Phihong	PSA21R-150	20.0	15.0	1.33	150	±1%	±2%	27.15	24.65	23.32	21.99
229745CR	Phihong	PSA21R-180	20.0	18.0	1.11	180	±1%	±2%	27.15	24.65	23.32	21.99
228873CR	Phihong	PSA21R-240	20.0	24.0	0.83	240	±1%	±2%	27.15	24.65	23.32	21.99

#### AC Plug Clips and Plug Clip Kits (sold separately, required for above adapters)

Part No.	Manufacturer	Product No.	Description	1	10	50	100
229155CR	Phihong	RPA	USA Plug	\$.53	\$.51	\$.50	\$.49
229163CR	Phihong	RPE	European Plug	.61	.59	.58	.57
229171CR	Phihong	RPK	UK Plug	.99	.97	.94	.91
229180CR	Phihong	RPKIT	Kit w/ RPA/RPE/RPK/RPS (AUST)	2.65	2.39	2.32	2.25





# AC-to-DC Regulated Switching Wall Adapters

Color Code Legend  
New Sale Qty. Save

JAMECO ReliaPro

## Slim Line Regulated Switching Wall Adapters

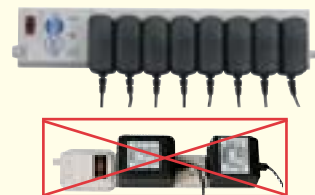
Introducing our new slim line switching wall adapters. Compact in size and lightweight, they are the perfect power solution in all those applications where space is critical. And their high efficiency satisfies requirements for minimizing power losses. You no longer have to deal with traditional wall adapters that block unused outlets in wall plates and power strips/surge protectors.

- 2-wire AC input
- Input voltage: 100 – 240VAC@47-63Hz
- Output cord length: 6'
- Output connector: 2.1mm x 5.5mm F2 (center positive)

We'll Brand the Adapters  
With Your Company Name  
Call 1-800-831-4242 for Details



- Color: black
- Agency approvals: UL/CUL/TUV/CE



Part Number	Product Number	Output Rating		Size (H"xW"xD")	Wt. (lbs.)	Pricing			
		Volts (VDC)	Current (mA)			1	10	50	100
251563CR	S08AA033150	3.3	1500	2.5x1.1x1.7	0.2	\$10.95	\$9.94	\$9.17	\$8.85
251598CR	S15AA033250	3.3	2500	2.9x1.3x2.2	0.3	11.49	10.43	9.63	9.29
252700CR	S08AB050050	5.0	500	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252718CR	S08AB050100	5.0	1000	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252726CR	S08AB050150	5.0	1500	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252734CR	S15AB050250	5.0	2500	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252742CR	S08AD090025	9.0	250	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252751CR	S08AD090050	9.0	500	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252769CR	S08AD090090	9.0	800	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252777CR	S15AD090120	9.0	1200	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252785CR	S15AS090170	9.0	1500	2.9x1.3x2.2	0.3	12.49	11.34	10.47	10.10

Part Number	Product Number	Output Rating		Size (H"xW"xD")	Wt. (lbs.)	Pricing			
		Volts (VDC)	Current (mA)			1	10	50	100
252793CR	S08AE120025	12.0	250	2.5x1.1x1.7	0.2	\$10.49	\$9.52	\$8.79	\$8.48
252806CR	S08AE120050	12.0	500	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252814CR	S08AE120070	12.0	600	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
252831CR	S15AE120140	12.0	1250	2.9x1.3x2.2	0.3	12.95	11.76	10.85	10.47
252881CR	S08AF150013	15.0	130	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252890CR	S08AF150050	15.0	500	2.5x1.1x1.7	0.2	11.49	10.43	9.63	9.29
254756CR	S15AF150080	15.0	800	2.9x1.3x2.2	0.2	11.95	10.85	9.99	9.64
252902CR	S15AF150120	15.0	1200	2.9x1.3x2.2	0.3	12.95	11.76	10.85	10.47
252849CR	S08AH240013	24.0	130	2.5x1.1x1.7	0.2	10.49	9.52	8.79	8.48
252857CR	S08AH240025	24.0	250	2.5x1.1x1.7	0.2	10.95	9.94	9.17	8.85
252865CR	S15AH240050	24.0	500	2.9x1.3x2.2	0.3	11.95	10.85	9.99	9.64
252873CR	S15AH240063	24.0	630	2.9x1.3x2.2	0.3	12.49	11.34	10.85	10.47

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Quantity  
**SAVE**

## 2-Wire AC Input – AC-to-DC Regulated Switching Wall Adaptors

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We will change any power plug (pg 100) on any DC wall adapter listed (100 pc. minimum).

**SALE**

New Lower  
Prices



Polarity 1 (+) (center negative)

Polarity 2 (–) (center positive)

Female



Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Input VAC @ Hz	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)								1	10	50	100
230543CR	Phihong	PSA05A-050	5	1000	2.1mm x 5.5mm F 2	90-264@47-63	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CUL	\$10.95	\$9.85	\$8.89	\$7.85
228881CR	Phihong	PSC10A-050	5	2000	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.09	11.88	11.12	10.36
210892CR	ReliaPro	EPA101MU	5	2000	2.5mm x 5.5mm F 2	100-240@50-60	3.2 x 2.4 x 1.3	Black	6'	0.4	UL/CUL	12.95	11.66	9.32	6.99
210893CR	ReliaPro	S15AB050200	5	2000	2.5mm x 5.5mm F 2	100-240@47-63	2.9 x 1.4 x 2.2	Black	6'	0.2	UL/CUL	12.95	11.69	10.49	8.75
236751CR	GlobTek	WR92A2600CCP†	5	2600	2.1mm x 5.5mm F 2	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.5	UL/CUL/TUV/CE	13.49	12.15	10.95	9.85
228937CR	Phihong	PSC15A-050	5	3000	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
228890CR	Phihong	PSC10A-090S	9	1100	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.79	11.99	10.99	10.49
228945CR	Phihong	PSC15A-090	9	1600	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
227782CR	Mean Well	KWM020-09B	9	1670	2.1mm x 5.5mm F 2	90-264@47-63	1.6 x 2.0 x 2.9	Black	6'	0.4	UL/CSA	13.55	12.29	11.35	9.89
230551CR	Phihong	PSA05A-120	12	420	2.1mm x 5.5mm F 2	90-264@47-63	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CUL	16.39	15.95	14.75	13.29
229753CR	Phihong	PSC10A-120S	12	830	2.1mm x 5.5mm F 2	90-132@ 57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.89	10.99	10.59
228953CR	Phihong	PSC15A-120	12	1250	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
220687CR	Mean Well	L15D12B-P1J	12	1250	2.1mm x 5.5mm F 2	90-264@50-60	3.1 x 2.2 x 1.2	Black	6'	0.4	UL/CSA/TUV	13.55	12.29	11.35	9.89
249076CR	Mean Well	G15U-3P2L	12	1250	2.5mm x 5.5mm F 2	100-240@50-60	3.1 x 2.1 x 1.4	Black	6'	0.4	UL/CUL/CE	14.95	13.49	12.15	10.95
228911CR	Phihong	PSC10A-150S	15	670	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.89	10.99	10.59
224590CR	Mean Well	L15D15B-P1J	15	1000	2.1mm x 5.5mm F 2	90-240@50-60	3.2 x 2.2 x 1.3	Black	6'	0.5	UL/CSA	13.55	12.29	11.35	9.89
228961CR	Phihong	PSC15A-150	15	1000	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95
168487CR	Mean Well	KWM020188	18	1000	2.1mm x 5.5mm F 2	100-240@50-60	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL	17.95	16.19	13.75	10.35
228929CR	Phihong	PSC10A-240S	24	420	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	12.95	11.89	10.99	10.59
228970CR	Phihong	PSC15A-240	24	620	2.1mm x 5.5mm F 2	90-132@57-63	2.9 x 1.9 x 1.4	Black	6'	0.4	UL/CUL	13.55	12.29	11.35	10.95

### Special Limited Offers from Other Manufacturers

225995CR	Delta Electronics	ADP-5DB	5	1000	2.5mm x 5.5mm F 2	100-120@50-60	2.5 x 1.8 x 1.1	Black	6'	0.2	UL	\$10.95	\$9.85	\$7.89	\$5.89
216442CR	AK II Power Supply	A05C1-05MP	5	1600	2.5mm x 5.5mm F 2	100-240@50-60	2.2 x 1.8 x 1.1	Black	6'	0.4	UL/CUL/CE	12.95	11.65	10.49	9.49
189190CR	Interex	EPA101MU-05B	5	2000	2.5mm x 5.5mm F 1	100-240@50-60	3.2 x 2.8 x 1.3	Black	6'	0.4	UL/CUL	12.49	11.24	8.99	6.74
305066CR	Ault	SC102TA0503B01	5	3000	2.5mm x 5.5mm F 2	100-240@47-63	2.9 x 2.0 x 1.6	Black	6'	0.5	UL/CUL	11.65	10.76	10.06	9.36
249324CR	Philips	A600M101	12	500	2.1mm x 5.5mm F 2	100-240@50-60	2.4 x 1.8 x 1.0	Black	6'	0.4	UL/CSA	13.19	11.89	9.49	7.15
298054CR	DVE	DSA-009-12A	12	750	2.1mm x 5.5mm F 2	90-132@47-63	2.7 x 1.1 x 1.8	Black	6'	0.3	UL/CUL	11.89	10.97	10.24	9.49
252822CR	—	S15AE120100	12	1000	2.1mm x 5.5mm F 2	100-240@47-63	2.9 x 1.3 x 2.2	Black	6'	0.3	UL/CUL/TUV/CE	11.95	10.85	9.99	9.64
235096CR	—	DSA-0151A-12S	12	1250	2.1mm x 5.5mm F 2	100-240@50-60	3.2 x 2.1 x 1.4	Black	6'	0.3	UL/CUL	13.49	12.15	10.95	9.85

▲ Brand and product number may vary except for Mean Well, Phihong, Globtek and ReliaPro

† 3-wire AC input

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AC-to-DC Wall Adapters continued on pages 151 - 154

## Compact DC Regulated Switching Power Adapter with Detachable Plugs

This state-of-the-art switching power adapter offers some major advantages such as stabilized outputs, short circuit and overload protection, compact design, and low idle consumption versus typical wall adapters.

- 8 plugs: 2.5mm M mono, 3.5mm M mono, 1.0mm x 3.0mm F, 1.3mm x 3.5mm F, 1.7mm x 4.0mm F, 2.1mm x 5.0mm F, 1.5mm x 5.5mm F, and 2.5mm x 5.5mm F
- Selectable output voltages: 3 / 4.5 / 6 / 7.5 / 9 / 12 VDC @ 800mA (regulated) with 1.5A max. output



Part No.	Description	Input Voltage	Power Output	Efficiency	Size	Weight	Price
239564CR	Compact power adapter	100-240VAC	10W	80%	2.9"H x 1.2"W x 1.9"D	0.2 lbs.	\$22.95

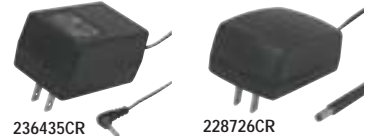


## 2-Wire AC Input – AC-to-DC Regulated Linear Wall Adaptors

Quantity  
**SAVE SALE**

We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 100) on any DC wall adapter listed (100 pc. minimum).

New Lower Prices



Polarity 1		Polarity 2		Female
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Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Input VAC @ Hz	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)								1	10	50	100
164101CR	ReliaPro	RDU050050	5	500	2.1mm x 5.5mm F 2	120@60	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	\$9.95	\$8.96	\$8.06	\$7.25
220935CR	ReliaPro	DDU050060	5	600	2.1mm x 5.5mm F 1	120@60	2.7 x 2.2 x 1.9	Black	6'	0.8	UL/CUL	12.29	11.06	9.95	8.96
196411CR	ReliaPro	DDU050100	5	1000	2.1mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Ivory	6'	1.0	UL/CUL	10.95	9.86	7.88	5.91
168605CR	ReliaPro	DBU050100	5	1000	2.5mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	11.39	10.49	9.65	8.29
190512CR	ReliaPro	DBU60020-H3570	6	200	2.1mm x 5.5mm F 2	120@60	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	6.95	6.26	5.44	4.06
220898CR	ReliaPro	DCU120020	12	200	2.1mm x 5.5mm F 1	120@60	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	7.85	7.06	5.65	4.24
162996CR	ReliaPro	DDU120050	12	500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.2 x 1.9	Black	6'	0.9	UL/CUL	9.95	8.96	8.06	7.25
170245CR	ReliaPro	RDU120100	12	1000	2.1mm x 5.5mm F 2	120@60	3.2 x 2.3 x 2.0	Black	6'	1.2	UL/CUL	13.95	12.59	11.35	10.19
249244CR	ReliaPro	DFU120150	12	1500	2.1mm x 5.5mm F 2	108-132@50-60	3.3 x 2.7 x 2.2	Black	6'	0.4	UL/CUL	14.95	13.49	12.15	10.95
174861CR	ReliaPro	DFU240050	24	500	2.1mm x 5.5mm F 2	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	UL/CUL	11.95	10.79	9.69	8.75
174879CR	ReliaPro	RFU240050	24	500	2.5mm x 5.5mm F 2	120@60	3.4 x 2.7 x 2.2	Black	6'	1.3	—	11.95	10.79	9.69	8.75

### Special Limited Offers from Other Manufacturers

236435CR	APX	AP2814	5	300	1.3mm x 3.5mm right angle F 2	120@60	2.9 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	\$7.15	\$6.45	\$5.15	\$3.85
289182CR	AESP	AD-5600RDU	5	600	2.1mm x 5.5mm F 2	120@60	3.1 x 2.8 x 1.9	Black	6'	0.9	UL/CUL	10.49	9.44	8.50	7.65
171301CR	Imitation	JOD48U08	5	1000	2.1mm x 5.5mm F 2	120@60	3.1 x 2.9 x 2.0	Black	6'	1.0	UL/CUL	10.95	9.89	8.89	7.99
168604CR	ITE Power Supply	RWP480505	5	1000	2.5mm x 5.5mm F 2	120@60	3.3 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	10.25	9.45	8.69	7.45
297941CR	—	JOD-480-08	5	1000	2.5mm x 5.5mm F 2	120@60	3.1 x 2.3 x 1.9	Black	6'	0.9	UL	10.99	9.24	8.90	8.00
228726CR	ORB	777-052000S-UF	5	2000	2.1mm x 5.5mm F 2	100@50-60	3.1 x 2.1 x 1.5	Black	5'	0.5	UL/CUL	12.95	10.35	7.79	5.49
248743CR	MEI	EPA-101M-05A	5	2500	2.1mm x 5.5mm F 2	120@60	3.2 x 2.4 x 1.4	Black	6'	0.5	UL/CUL	13.49	12.14	9.71	7.28
190511CR	Salom Electric	SADB-0885	6	200	2.1mm x 5.5mm F 2	115@60	2.6 x 1.8 x 1.5	Black	6'	0.4	UL/CUL	6.25	5.65	4.89	3.65
283573CR	—	DC600500	6	500	2.1mm x 5.5mm F 2	120@60	3.1 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	7.85	7.06	5.65	4.24
190529CR	NOMA	AD9123	9	250	2.5mm x 5.5mm right angle F 2	120@60	2.5 x 2.0 x 1.6	Black	12'	0.5	UL/CSA	6.49	5.85	4.65	3.50

▲ Brand and Product Number may vary except for Mean Well, Pihong, Globtek and ReliaPro

## 2-Wire AC Input – AC-to-DC Unregulated Wall Adapters



Quantity  
**SAVE SALE**

We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 100) on any DC wall adapter listed (100 pc. minimum).

SALE

• Input: 120VAC @ 60Hz

Polarity 1		Female		Male	Polarity 2	
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New Lower Prices



Part Number	Brand	Product Number	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
112070CR	ReliaPro	DBU050022	5	225	2.5mm x 5.5mm F 2	1.9 x 2.2 x 2.0	Black	7'	0.3	UL/CSA	\$7.29	\$6.59	\$5.95	\$5.35
155601CR	ReliaPro	DCU050100	5	1000	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.7	Black	6'	0.7	UL/CSA	5.19	4.67	3.74	2.80
119255CR	ReliaPro	DBU060050	6	500	2.1mm x 5.5mm F 1	2.3 x 1.8 x 1.8	Black	6'	0.6	UL/CUL	4.29	3.86	3.09	2.35
101266CR	ReliaPro	DBU060050	6	500	2.1mm x 5.5mm F 2	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	4.29	3.86	3.47	3.13
15544CR	ReliaPro	DBU060050	6	500	3.5mm M 2	2.4 x 1.9 x 1.6	Black	6'	0.4	UL/CSA	4.29	3.86	3.47	3.13
147707CR	ReliaPro	DBU060080	6	800	2.1mm x 5.5mm F 2	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.49	4.05	3.65
220943CR	ReliaPro	DCU060120	6	1200	2.1mm x 5.5mm F 1	2.5 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	6.49	5.84	4.67	3.50
220951CR	ReliaPro	DCU075100	7.5	1000	2.1mm x 5.5mm F 1	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CUL	9.19	8.27	6.62	4.96
280250CR	ReliaPro	DDU075110	7.5	1100	2.1mm x 5.5mm F 2	1.8 x 1.2 x 0.8	Black	6'	0.9	UL/CUL	6.29	4.99	4.30	4.19
127511CR	ReliaPro	DDU080100	8	1000	2.1mm x 5.5mm F 2	3.1 x 2.5 x 2.1	Black	6'	1.3	UL	7.95	7.19	6.45	5.85
100845CR	ReliaPro	DBU090020	9	200	2.1mm x 5.5mm F 2	2.1 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.89	2.15
134025CR	ReliaPro	DBU090020	9	200	2.1mm x 5.5mm F 1	2.1 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.95	4.46	3.56	2.67
100837CR	ReliaPro	DBU090020	9	200	3.5mm M 2	2.6 x 1.8 x 1.6	Black	6'	0.4	UL/CSA	3.95	3.59	3.25	2.95
133891CR	ReliaPro	DBU090030	9	300	2.1mm x 5.5mm F 2	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56	3.03	2.59
189238CR	ReliaPro	DBU090030	9	300	2.5mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	4.25	3.59	2.95	2.35
202155CR	ReliaPro	DBU090035	9	350	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.3	UL/CUL	3.29	2.96	2.66	2.40

More AC-to-DC Wall Adapters listed on pages 152 - 154

# AC-to-DC Unregulated Wall Adapters (Continued)

Color Code Legend  
New Sale Qty Save Closeout



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**SALE**

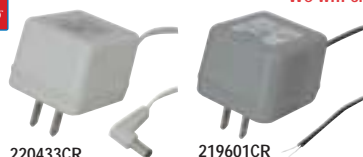
**Quantity  
SAVE**

Polarity 1 ⊕ ⊖ (center negative)

Polarity 2 ⊖ ⊕ (center positive)

Female

Male



220433CR

219601CR

• Input: 120VAC @ 60Hz



213559CR

232258CR

**New Lower  
Prices**



Part Number	Brand	Product Number	Output Rating*		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing				
			Voltage (VDC)	Current (mA)							1	10	50	100	
140636CR	ReliaPro	DCU090040	9	400	2.5mm x 5.5mm F 2	2.6 x 2.0 x 2.0	Black	6'	0.6	UL/CSA	\$4.19	\$3.79	\$3.39	\$3.05	
202171CR	ReliaPro	DCU090045	9	450	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.5	UL/CUL	3.95	3.59	3.25	2.89	
163627CR	ReliaPro	DCU090050	9	500	2.1mm x 5.5mm F 1	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.95	4.45	3.95	
100853CR	ReliaPro	DCU090050	9	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.95	4.46	4.01	3.61	
147731CR	ReliaPro	AD-11950	9	500	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.7	Beige	6'	0.6	UL/CSA	\$4.95	3.46	3.14	2.86	2.60
236937CR	ReliaPro	DCU090050A	9	500	2.5mm x 5.5mm right angle F 2	2.5 x 2.0 x 1.7	Black	6'	0.4	UL/CSA	5.79	5.21	4.69	4.22	
15561CR	ReliaPro	DCU090050	9	500	3.5mm M 2	2.5 x 2.0 x 1.6	Black	6'	0.5	UL/CSA	4.85	4.36	3.93	3.54	
202180CR	ReliaPro	DCU090060	9	600	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	4.89	4.05	3.49	2.65	
100175CR	ReliaPro	DCU090060	9	600	2.5mm x 5.5mm F 2	2.7 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	5.49	4.75	4.25	3.95	
202198CR	ReliaPro	DCU090080	9	800	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	6.95	6.26	5.63	5.07	
127504CR	ReliaPro	DC910F5-VP	9	1000	2.5mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.49	6.75	6.05	5.05	
15587CR	ReliaPro	DDU090100	9	1000	3.5mm M 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.95	7.19	6.45	5.35	
130526CR	ReliaPro	DDE090120	9	1200	2.1mm x 5.5mm F 1	2.4 x 2.0 x 1.8	Black	6'	1.0	UL/CSA	8.95	8.06	6.44	4.83	
143693CR	ReliaPro	DFU0901500A3040	9	1500	2.1mm x 5.5mm F 2	3.3 x 2.5 x 2.3	Black	6'	1.3	UL/CSA	9.95	8.95	6.95	5.19	
163993CR	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm right angle F 1	2.4 x 1.7 x 1.6	Black	6'	0.4	UL/CSA	4.79	4.31	3.88	3.49	
100095CR	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm F 2	2.1 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56	2.84	2.13	
158043CR	ReliaPro	DBU120020	12	200	2.1mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.49	4.04	3.64	3.27	
220433CR	ReliaPro	DBU120020	12	200	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Lt. Gray	6'	0.4	UL/CSA	4.39	3.95	3.56	3.20	
185658CR	ReliaPro	DBU120020	12	200	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	4.79	4.31	3.45	2.59	
219601CR	ReliaPro	DCU120025	12	250	Stripped & tinned	2.5 x 2.0 x 1.7	Dk. Gray	6'	0.4	UL/CUL	3.95	3.56	2.84	2.13	
127976CR	ReliaPro	DCU120030	12	300	2.1mm x 5.5mm F 2	2.6 x 1.8 x 1.6	Black	6'	0.7	UL/CSA	4.75	4.29	3.85	3.25	
249236CR	ReliaPro	DBU120030	12	300	2.5mm x 5.5mm right angle F 2	2.2 x 1.7 x 1.5	Black	6'	0.5	UL/CUL	4.85	3.85	3.39	3.09	
190502CR	ReliaPro	ADA-410	12	400	2.1mm x 5.5mm right angle F 2	2.6 x 2.1 x 1.9	Black	6'	0.5	UL/CUL	6.69	6.02	4.82	3.61	
114825CR	ReliaPro	DCU120050	12	500	Connector end may vary	2.5 x 2.0 x 1.7	Black	6'	0.6	CUL	4.75	4.35	3.45	2.59	
15368CR	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm F 1	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	6.49	5.85	5.29	4.75	
102496CR	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm F 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	5.25	4.16	3.64	3.46	
131300CR	ReliaPro	DCU120050	12	500	2.1mm x 5.5mm right angle F 2	2.6 x 1.9 x 1.7	Beige	6'	0.6	UL/CSA	5.49	4.94	4.45	4.00	
102277CR	ReliaPro	DCU120050U	12	500	2.5mm x 5.5mm F 2	2.5 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	5.19	4.67	4.20	3.78	
17267CR	ReliaPro	DCU120050	12	500	3.5mm M 2	2.5 x 1.9 x 1.6	Black	6'	0.6	UL/CSA	5.19	4.67	4.20	3.78	
202201CR	ReliaPro	DCU120060	12	600	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	4.95	4.45	3.55	2.69	
202219CR	ReliaPro	DCU120070	12	700	2.1mm x 5.5mm F 2	3.3 x 2.9 x 2.3	Black	6'	0.6	UL/CUL	5.19	4.67	3.74	2.80	
117479CR	ReliaPro	DDU120080	12	800	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	6.95	6.29	5.65	5.09	
129331CR	ReliaPro	DDU120080	12	800	2.5mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CSA	5.49	4.95	4.45	4.05	
121232CR	ReliaPro	DDU120080	12	800	3.5mm M 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	6.19	5.57	4.46	3.34	
100870CR	ReliaPro	DDU120100	12	1000	2.1mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	8.19	7.37	6.63	5.97	
105478CR	ReliaPro	DDU120100	12	1000	2.5mm x 5.5mm F 2	3.1 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.49	6.74	5.73	4.30	
15392CR	ReliaPro	DDU120100	12	1000	3.5mm M 2	3.3 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16	6.44	5.80	
213559CR	ReliaPro	GPC-081	12	1000	Auto lighter power outlet	4.3 x 2.2 x 1.9	Black	—	1.1	UL/CUL	13.95	12.56	10.04	7.53	
196779CR	ReliaPro	DDU120120	12	1200	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.79	7.91	7.10	6.29	
203036CR	ReliaPro	DDU120150	12	1500	2.1mm x 5.5mm F 1	3.3 x 2.2 x 1.9	Black	6'	1.5	UL/CUL	12.95	11.69	9.35	6.99	
136881CR	ReliaPro	DFU120150	12	1500	2.1mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	12.95	11.69	10.55	9.45	
101291CR	ReliaPro	D571201500U	12	1500	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.5	UL	10.39	9.35	8.42	7.57	
212812CR	ReliaPro	DBU140020	14	200	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	3.05	2.79	2.55	2.29	
212821CR	ReliaPro	DBU140030	14	300	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	\$4.95	4.49	4.04	3.23	2.42
212839CR	ReliaPro	DCU140050	14	500	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.8	UL/CUL	3.72	3.35	2.99	2.69	
123932CR	ReliaPro	DDU140070	14	700	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	8.49	7.65	6.89	6.19	
202243CR	ReliaPro	DDU140070	14	700	2.5mm x 5.5mm F 2	3.9 x 2.9 x 2.4	Black	6'	0.8	UL/CUL	7.25	6.52	5.22	3.92	
202260CR	ReliaPro	DDU140100	14	1000	2.1mm x 5.5mm F 2	3.9 x 2.9 x 2.4	Black	6'	0.9	UL/CUL	7.95	6.95	6.25	5.59	
190001CR	ReliaPro	DCU150050	15	500	2.1mm x 5.5mm F 2	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.49	5.84	4.67	3.50	
189982CR	ReliaPro	DCU150050	15	500	2.5mm x 5.5mm F 2	2.3 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	6.95	6.29	5.05	3.79	
155803CR	ReliaPro	DDU150060	15	600	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CSA	8.95	8.06	6.44	4.83	
232258CR	ReliaPro	DDU150080	15	800	2.1mm x 5.5mm F 1	2.9 x 2.3 x 1.9	Black	6'	1.0	UL	9.49	8.55	7.69	6.95	
203502CR	ReliaPro	DDU150090	15	900	2.5mm x 5.5mm F 2	2.6 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	6.95	6.25	5.49	4.75	
151992CR	ReliaPro	DDU150100	15	1000	2.1mm x 5.5mm F 1	3.1 x 2.0 x 1.9	Beige	6'	1.5	UL/CSA	\$8.99	8.49	7.64	6.11	4.58
191652CR	ReliaPro	DDU150100	15	1000	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	9.59	8.65	7.79	6.99	
162317CR	ReliaPro	DDU150500	16	500	2.1mm x 5.5mm F 2	2.2 x 2.4 x 1.9	Black	6'	0.8	UL/CSA	7.95	6.95	6.25	5.59	

\* See other values under "Special Limited Offers from Other Manufacturers" on page 153.

More AC-to-DC Wall Adapters listed on pages 153 - 154

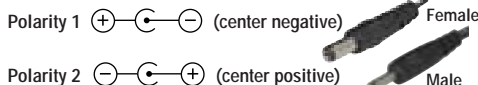


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169519CR

227774CR

• Input: 120VAC @ 60Hz



220901CR

217541CR

123158CR

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
181729CR	ReliaPro	DCU180025	18	250	2.1mm x 5.5mm F 2	2.6 x 2.0 x 1.6	Black	6'	0.6	UL	\$6.95	\$6.26	\$5.00	\$3.75
163272CR	ReliaPro	DDU180050-2	18	500	2.1mm x 5.5mm F 2	2.6 x 2.3 x 1.9	Black	6'	0.8	UL/CUL	9.95	8.99	8.09	7.25
206958CR	ReliaPro	DDU180100	18	1000	2.5mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.4	UL/CUL	9.95	8.99	7.19	5.39
102285CR	ReliaPro	DDU240040	24	400	2.1mm x 5.5mm F 2	3.0 x 2.3 x 2.0	Black	6'	0.9	UL/CUL	7.95	7.19	6.45	5.85
163635CR	ReliaPro	DDU240050	24	500	2.1mm x 5.5mm F 1	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.95	8.06	6.44	4.83
191556CR	ReliaPro	DDU240050	24	500	2.5mm x 5.5mm F 2	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	8.95	8.06	6.44	4.83
139088CR	ReliaPro	DDU240050	24	500	3.5mm M 2	3.1 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	7.95	7.16	5.72	4.29
168495CR	ReliaPro	DFU240080	24	800	2.1mm x 5.5mm F 2	2.9 x 1.9 x 1.6	Black	6'	0.4	UL/CUL/TUV	10.95	9.86	7.88	5.91
220960CR	ReliaPro	DFU240100	24	1000	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.6	UL/CUL	13.89	12.95	11.39	10.89
163651CR	ReliaPro	DHU240120	24	1200	2.1mm x 5.5mm F 1	3.8 x 3.0 x 2.6	Black	6'	2.0	---	14.95	13.46	12.11	10.90
249130CR	ReliaPro	AFU240120/G8530	24	1200	2.1mm x 5.5mm F 1	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
249121CR	ReliaPro	DFU240120/G8520	24	1200	2.1mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
249113CR	ReliaPro	DFU240120/G8510	24	1200	2.5mm x 5.5mm F 2	3.4 x 2.7 x 2.2	Black	6'	1.7	UL/CUL	15.95	14.85	13.09	12.49
199523CR	ReliaPro	DDU300050	30	500	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	9.95	8.95	7.19	5.39
215095CR	ReliaPro	MW48-4800250	48	250	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	7.95	7.15	6.49	5.79
230631CR	ReliaPro	MW48-4800250-2.1	48	250	2.1mm x 5.5mm F 1	3.3 x 2.7 x 2.2	Black	6'	1.1	UL/CUL	8.95	8.09	7.25	6.55
215108CR	ReliaPro	MW48-4800500	48	500	2.5mm x 5.5mm F 2	2.9 x 2.3 x 1.9	Black	6'	1.1	UL/CUL	10.95	9.85	8.85	7.95
230640CR	ReliaPro	MW48-4800500-2.1	48	500	2.1mm x 5.5mm F 2	3.3 x 2.7 x 2.2	Black	6'	1.1	UL/CUL	11.95	10.75	9.69	8.95

**Special Limited Offers from Other Manufacturers**

237227CR	Freeplay	DX351307	4.5	100	1.3mm x 3.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	\$4.49	\$4.04	\$3.23	\$2.42
243070CR	Regal	WHO45300-10N	4.5	300	2.1mm x 5.5mm F 1	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	6.95	6.26	5.00	3.75
219651CR	—	FE4823-050E120	5	1200	2.5mm x 5.5mm F 2	3.5 x 2.4 x 1.9	Black	6'	1.2	UL/CUL	5.16	4.76	3.81	2.86
237251CR	Freeplay	DPX350817	6	100	2.1mm x 5.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	3.95	3.59	2.85	2.15
243117CR	Regal	WHO60200-10N	6	200	2.5mm x 5.5mm F 1	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.59	2.85	2.15
302439CR	—	AD-0630M	6	300	2.1mm x 5.5mm F 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.99	3.56	3.13	2.80
201451CR	APX Technologies	AP4733	6	700	2.1mm x 5.5mm F 2	2.6 x 1.9 x 1.4	Black	6'	0.5	UL/CUL	4.95	3.95	2.95	2.19
227951CR	—	JOB-48U-33	6	2100	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.15	6.45	5.79
248751CR	Uniq	AD-071A	7.5	1000	2.5mm x 5.5mm F 2	2.3 x 2.3 x 1.9	Black	6'	0.9	UL/CSA	6.49	5.85	4.69	3.50
249279CR	AESP	FO-AC-4305	7.5	1000	2.1mm x 5.5mm right angle F 2	3.2 x 2.0 x 1.7	Black	6'	0.8	UL/CUL	6.95	6.25	5.65	5.09
230623CR	—	MKD-48752100	7.5	2100	2.1mm x 5.5mm F 2	3.3 x 2.2 x 1.9	Black	6'	1.3	UL/CUL	7.95	7.15	5.75	4.29
308056CR	—	A40910M	8.7	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16	5.72	4.29
265480CR	Uniden	AD-600B	9	100	2.1mm x 5.5mm right angle F 2	2.1 x 1.4 x 1.4	Black	6'	0.3	UL/CSA	3.49	3.14	2.51	1.88
265498CR	Uniden	AD-600W	9	100	2.1mm x 5.5mm right angle F 2	2.1 x 1.4 x 1.4	White	6'	0.3	UL/CSA	3.49	3.14	2.51	1.88
237243CR	Freeplay	DPX351322	9	200	2.1mm x 5.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	3.79	3.45	3.15	2.79
191767CR	—	CTPS3509030020C	9	300	1.3mm x 3.5mm right angle F 2	2.3 x 1.8 x 1.5	Black	6'	0.4	UL/CSA	4.19	3.77	3.02	2.26
133891CR	—	DC903F1	9	300	2.1mm x 5.5mm F 2	2.0 x 1.5 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.56	3.03	2.59
189237CR	ACI World	35-9-300C	9	300	2.5mm x 5.5mm F 2	2.2 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	4.25	3.59	2.95	2.35
216469CR	Everglow	D350900300U	9	300	2.5mm x 5.5mm F 1	2.4 x 1.7 x 1.7	Black	6'	0.4	UL/CUL	2.37	2.16	1.96	1.78
169519CR	Panasonic	KX-TCA1	9	350	2.1mm x 5.5mm right angle F 1	2.7 x 1.7 x 1.6	Dk. Gray	6'	0.4	UL/CSA	3.89	3.49	3.14	2.51
170270CR	Panasonic	PQLV1	9	500	2.1mm x 5.5mm right angle F 1	2.7 x 1.9 x 1.8	Gray	6'	0.6	UL/CSA	4.49	4.05	3.45	2.55
164929CR	—	DDU090100	9	900	2.1mm x 5.5mm F 1	2.7 x 2.3 x 1.8	Black	6'	0.9	UL/CUL	7.95	7.15	5.75	4.29
100888CR	Everglow	DDU090100	9	1000	2.1mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	1.0	UL/CSA	7.95	7.16	5.72	4.29
227774CR	GTE	ADP2108GT	9	1000	2.1mm x 5.5mm right angle F 2	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CUL	7.95	7.15	5.75	4.29
285958CR	APX	AP2072P	9	1000	2.5mm x 5.5mm F 2	2.5 x 2.3 x 1.9	Black	6'	0.9	UL/CUL	6.95	5.56	4.87	4.62
127503CR	Atari	DC910F5	9	1000	2.5mm x 5.5mm F 2	2.6 x 2.4 x 2.0	Black	6'	0.9	UL/CSA	7.49	6.75	6.05	5.05
237067CR	APS	D9-15-950	9	1500	2.5mm x 5.5mm F 2	3.1 x 2.3 x 1.9	Black	6'	1.3	UL/CUL	9.95	8.99	7.19	5.39
237235CR	Freeplay	DPX351326	12	200	2.1mm x 5.5mm F 2	2.4 x 1.7 x 1.4	Black	6'	0.4	UL/CSA	3.79	3.45	2.75	2.05
211238CR	Quotrek	35D-12-250	12	250	2.5mm right angle M 2	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CSA	3.95	3.55	2.89	2.15
163491CR	—	AD1230	12	300	Connector end may vary	2.2 x 2.2 x 1.6	Black	6'	0.5	UL/CSA	4.29	3.86	3.09	2.32
201099CR	—	SPN4230A	12	300	1.3mm x 3.5mm right angle F 2	2.3 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	4.99	4.49	3.59	2.69
200125CR	Noostuff Inc.	DV1250	12	500	2.5mm x 5.5mm F 1	2.4 x 2.0 x 1.6	Black	6'	1.0	UL/CSA	4.25	3.82	3.44	3.10
305103CR	—	AD1250-5LE	12	500	2.1mm x 5.5mm F 2	2.6 x 1.9 x 1.7	Black	6'	0.6	UL/CSA	4.89	3.94	3.45	3.28
237358CR	QSE	P155-D150567	12	800	2.5mm x 5.5mm F 2	3.0 x 2.3 x 1.9	Black	6'	0.9	UL	5.19	4.69	3.75	2.79
211051CR	Calrad ↑	DV-1280 Dual	12	800	2.5mm x 5.5mm rt angle F 2 w/ input switch	2.6 x 2.4 x 1.9	Black	6'	0.9	—	5.39	4.85	3.95	2.95
240101CR	—	FW3288	12	1000	2.1mm x 5.5mm F 2	3.8 x 2.4 x 2.2	Black	6'	1.0	UL/CSA	7.49	6.75	6.09	5.49
199566CR	Superworld	WK1201A01DN	12	1000	2.5mm x 5.5mm F 2 (w/ RF filter)	3.2 x 2.2 x 2.0	Black	6'	1.2	UL/CSA	6.95	6.26	5.63	5.07
189579CR	Fellowes	BCU12100	12	1000	2.5mm x 5.5mm right angle F 2	3.2 x 2.2 x 1.9	Black	6'	1.0	UL/CSA	7.95	7.19	5.75	4.35
203035CR	Brother	A41215	12	1500	2.1mm x 5.5mm F 1	3.6 x 2.5 x 1.9	Black	6'	1.5	UL/CSA	12.95	11.69	9.35	6.99
189211CR	ACI World	57-12-1500D	12	1500	8-pin mini DIN M	3.4 x 2.6 x 2.2	Black	3'4"	1.7	UL/CUL	4.95	4.49	3.59	2.69
129314CR	—	DV-1250	14	360	2.5mm x 5.5mm right angle F 2	2.3 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	5.19	4.67	3.74	2.80
220901CR	Drake	3690454	16	250	Stripped & tinned	2.2 x 2.1 x 1.6	Black	6'	0.8	UL/CSA	5.95	5.35	4.29	3.19
217541CR	NiteRider	FE4116168C030	16.8	300	2.5mm x 5.5mm F 2 w/ LED indicator	3.1 x 2.1 x 1.6	Black	6'	0.6	UL/CUL	5.95	4.95	4.46	3.56

↑ 120 to 220VAC

▲ Brand and Product Number may vary except for Mean Well, Phihong, Globtek, and ReliaPro

Regulated Wall Adapters listed on pages 150 - 151

# AC-to-DC Unregulated Wall Adapters (Continued)

## Special Limited Offers from Other Manufacturers (Continued)

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD/Polarity F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VDC)	Current (mA)							1	10	50	100
217568CR	NiteRider	FE4126180P040	18	400	2.5mm x 5.5mm F 2 w/ LED indicator	3.5 x 2.1 x 1.6	Black	6'	0.8	UL/CUL	<del>\$6.49</del> \$5.99	\$5.39	\$4.31	\$3.23
206957CR	Globtek	WD1H1000LCX	18	1000	2.5mm x 5.5mm F 2	3.4 x 2.6 x 2.1	Black	6'	1.4	—	9.95	8.96	8.06	7.25
236443CR	—	FE4823240D030	24	300	2.5mm x 5.5mm F 2	3.5 x 2.4 x 1.9	Black	12'	1.2	UL/CUL	7.49	6.75	6.09	5.45
196322CR	3Com	P48240600A020G	24	600	2.1mm x 5.5mm F 2	3.3 x 2.3 x 1.9	Black	6'	1.1	UL/CSA	8.95	8.05	6.85	5.15
15309CR	—	900-051	3, 4.5, 6, 7.5, 9, 12	500	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 Female 2.5, 3.5 Male, 9V battery snap (LED ind.)	3.0 x 2.2 x 2.1	Black	6'	0.7	UL/CSA	9.49	8.54	7.69	6.92
190641CR	—	DCM08	3, 4.5, 6, 7.5, 9, 12	800	1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 Female 2.5, 3.5 Male, polarity sw. (LED ind.)	3.9 x 2.7 x 2.3	Black	6'	0.9	UL/CSA	7.95	7.19	5.75	4.29
123158CR	—	900-100 †	1.5, 3, 4.5, 6, 7.5, 9, 12	1000	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 Female 2.5, 3.5 Male, 9V battery snap (LED ind.)	3.7 x 2.2 x 2.5	Black	6'	0.9	—	10.95	9.86	8.87	7.98

▲ Brand and product number may vary except for Mean Well, Phihong, Globtek and ReliaPro

## 2-Wire AC Input – AC-to-AC Wall Adapters

**JAMECO ReliaPro**

**SALE**

We specialize in Wall Adapters – Call for additional OEM PRICING.  
We will change any power plug (pg 100) on any DC wall adapter listed (100 pc. minimum).

• Input: 120VAC @ 60Hz

Quantity **SAVE**

New Lower Prices

233293CR 236814CR

Screw Terminals Female Male Stripped

206421CR 240119CR

Part Number	Brand▲	Product Number▲	Output Rating		Output Connector ID x OD Plug Type F = female; M = male	Size H" x W" x D"	Case Color	Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing			
			Voltage (VAC)	Current (mA)							1	10	50	100
249017CR	ReliaPro	ACU070150	7	1500	2.5mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CSA	\$5.19	\$4.69	\$4.29	\$3.59
219619CR	ReliaPro	ABU09005	9	50	2.1mm x 5.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.3	UL/CSA	<del>\$2.42</del> 2.05	1.86	1.69	1.54
100061CR	ReliaPro	ACU090050	9	500	2.1mm x 5.5mm F	2.7 x 1.9 x 1.7	Black	6'	0.6	UL/CUL	4.59	4.13	3.30	2.88
233293CR	ReliaPro	ACU090080	9	800	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL	4.69	4.25	3.39	2.55
236814CR	ReliaPro	ACU090080	9	800	3.5mm M	2.5 x 2.0 x 1.7	Black	6'	0.5	UL/CUL	4.95	4.49	4.05	3.65
102234CR	ReliaPro	ACU090100	9	1000	2.1mm x 5.5mm F	3.2 x 2.2 x 1.9	Black	6'	0.6	UL/CSA	5.49	4.94	4.45	4.00
157041CR	ReliaPro	ACU090100	9	1000	2.5mm x 5.5mm F	2.1 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	6.95	6.29	5.65	5.09
112336CR	ReliaPro	ACU090150	9	1500	2.5mm x 5.5mm F	2.5 x 2.2 x 2.0	Black	6'	0.9	UL	9.95	8.96	8.06	7.25
101258CR	ReliaPro	ACU120050	12	500	2.1mm x 5.5mm F	2.5 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	4.59	4.15	3.65	3.29
10081CR	ReliaPro	ACU120100	12	1000	2.1mm x 5.5mm F	2.6 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67	4.20	3.78
100167CR	ReliaPro	A411201000U	12	1000	2.5mm x 5.5mm F	3.2 x 2.4 x 2.0	Black	6'	0.7	UL/CSA	5.19	4.67	4.20	3.78
10428CR	ReliaPro	ACU120100	12	1000	3.5mm M	2.6 x 2.4 x 2.0	Black	6'	0.6	UL/CUL	5.19	4.67	4.20	3.78
167151CR	ReliaPro	ADU120150	12	1500	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	6'	1.5	—	4.95	4.49	3.99	3.35
307838CR	ReliaPro	ADU120160	12	1600	2.5mm x 5.5mm F	2.9 x 2.3 x 1.9	Black	6'	1.0	UL/CUL	12.69	10.17	8.90	8.45
153761CR	ReliaPro	ADU120160	12	1600	3.5mm M	2.5 x 2.2 x 1.9	Black	6'	0.9	UL	10.95	9.85	8.39	6.25
171408CR	ReliaPro	ACU140050	14	500	2.1mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.49	4.04	3.23	2.42
100108CR	ReliaPro	ADU160100	16	1000	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	7.95	7.19	6.45	5.85
163053CR	ReliaPro	ADU160110	16	1100	2.5mm x 5.5mm F	3.2 x 2.3 x 1.8	Black	6'	1.1	UL/CSA	8.95	7.99	6.44	4.83
121216CR	ReliaPro	ADU180100	18	1000	2.1mm x 5.5mm F	3.1 x 2.7 x 1.9	Black	6'	1.1	UL/CUL	8.95	8.09	6.49	4.89
87581CR	ReliaPro	ADU240050	24	500	2.1mm x 5.5mm F	2.5 x 2.2 x 1.9	Black	6'	0.9	UL/CSA	5.19	4.67	4.20	3.78
140599CR	ReliaPro	ADU240100	24	1000	2.1mm x 5.5mm F	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	8.95	8.09	6.49	4.89
10102CR	ReliaPro	ADU240100	24	1000	3.5mm M	3.0 x 2.2 x 1.9	Black	6'	1.2	UL/CSA	7.95	7.19	6.45	5.85
176356CR	ReliaPro	AFU240125	24	1250	2.1mm x 5.5mm F	3.4 x 2.7 x 2.2	Black	5'8"	1.6	UL/CSA	10.49	9.45	7.55	5.65

## Special Limited Offers from Other Manufacturers

101127CR	Siemens	DFX10096B	7	1500	2.5mm x 5.5mm F	1.9 x 2.2 x 2.0	Black	7'6"	0.8	UL/CSA	\$4.95	\$4.49	\$3.95	\$3.49
219660CR	Sincore	SLA40810	8	1000	2.1mm x 5.5mm F	2.2 x 2.1 x 1.6	Black	6'	0.7	UL/CSA	4.79	4.31	3.45	2.59
210729CR	ITE Power Supply	MKA35090300	9	300	2.1mm x 5.5mm F	2.2 x 1.7 x 1.5	Black	6'	0.4	UL/CUL	3.95	3.55	2.84	2.13
184751CR	PhoneMate	M/N40	9	450	2.1mm x 5.5mm right angle F	2.8 x 2.0 x 1.7	Black	6'	0.8	UL/CSA	4.59	4.13	3.30	2.48
226131CR	US Robotics	AA0950	9	500	2.5mm x 5.5mm F	2.5 x 2.1 x 1.7	Black	6'	0.5	UL/CSA	4.49	4.04	3.23	2.42
249295CR	Pacrim	41A-9-700	9	700	2.5mm x 5.5mm F	2.3 x 2.0 x 1.7	Black	6'	0.6	UL/CSA	4.49	3.99	3.65	3.29
217550CR	Frino	FW6798	9	1900	Stripped and tinned	2.8 x 2.5 x 2.0	Black	6'8"	1.1	UL/CSA	8.49	7.64	6.11	4.58
210745CR	Leader Electronics	A4110050T	10	500	2.1mm x 5.5mm F	3.0 x 2.1 x 1.7	Black	6'	0.6	UL/CSA	2.65	2.39	2.29	1.99
265455CR	—	FW6199	12	200	2.1mm x 5.5mm F	2.1 x 1.9 x 1.9	Black	6'7"	0.5	UL	3.09	2.78	2.22	1.67
211271CR	Orig. Elec. Mfg.	AA-1250	12	500	2.5mm x 5.5mm F	2.3 x 2.1 x 1.6	Black	6'	0.6	UL/CSA	4.59	4.13	3.30	2.48
285069CR	Shogyo	DV-1283	12	830	2.5mm x 5.5mm F	2.8 x 2.0 x 1.6	Black	6'	0.6	UL/CSA	4.95	4.55	4.13	4.13
206404CR	MG Electronics	MGT1220	12	1670	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	6.95	6.29	5.65	5.09
210737CR	ITE Power Supply	PPI-1212UL	13	1200	2.1mm x 5.5mm F	3.3 x 2.4 x 2.0	Black	6'	0.9	UL/CUL	4.95	4.49	3.59	2.69
171854CR	Racal	DV1485AC	14	850	2.5mm x 5.5mm right angle F	3.0 x 2.0 x 1.7	Black	6'	0.7	UL/CUL	6.95	6.26	5.00	3.75
201101CR	Motorola	SPN4340A	15	200	1.3mm x 3.5mm F	2.2 x 1.8 x 1.5	Black	6'	0.5	UL/CSA	1.69	1.52	1.22	.91
227791CR	Ault	T41180500A0206	18	500	2.1mm x 5.5mm F	2.6 x 1.9 x 1.7	Black	6'	1.1	CSA	<del>\$7.95</del> 5.19	4.70	4.27	4.05
185439CR	Ault	T5182200-A020G	18	1850	2.1mm x 5.5mm right angle F	3.3 x 2.7 x 2.2	Black	6'	1.7	UL/CSA	7.49	6.74	5.39	4.04
206421CR	MG Electronics	MGT2410	24	420	Screw terminals	2.5 x 2.0 x 1.7	White	—	0.6	UL/CSA	<del>\$8.49</del> 6.49	5.84	5.26	4.73
240119CR	—	FW6798	24	500	2.5mm x 5.5mm F	2.8 x 2.5 x 2.2	Black	6'8"	0.8	UL/CSA	4.95	4.49	3.99	3.65
206439CR	MG Electronics	MGT2420	24	830	Screw terminals	3.2 x 2.2 x 1.9	White	—	0.9	UL/CSA	7.19	6.49	5.85	5.25
305091CR	Ault	3264024000A1	24	1600	3.5mm M	2.9 x 2.7 x 2.2	Black	6'	1.5	UL	9.95	8.54	8.06	7.25

▲ Brand and product number may vary except for Mean Well, Phihong, Globtek and ReliaPro

**SALE**

## Wall Adapter Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Size: 3.4"H x 2.7"W x 2.3"D
- Material: noryl • Color: black



Part No.	Style	1	10	100
115051CR	Non-vented	\$2.25	\$1.95	\$1.69
115043CR	Vented	2.25	1.95	1.69

## AC-to-AC Table-Top Step-Down Adapter

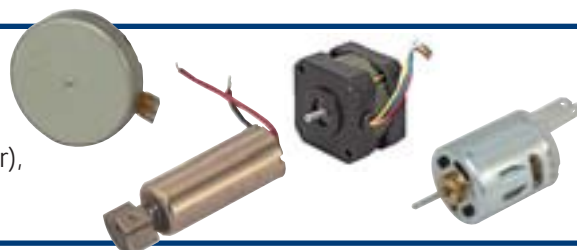
- Input voltage: 120VAC @ 60Hz
- Output current: 4.0A
- Output plug: 2.1mm (ID) x 5.5mm (OD) female
- Attached AC cord
- Agency approvals: CSA
- Size: 3.7"L x 2.9"W x 2.5"H
- Output volts: 16VAC
- Output watts: 64W
- Cord (AC/AC): 6'/6'
- Color: black
- Weight: 2.8 lbs.



Part No.	Manufacturer	Product Number	1	10	50
176604CR	Jameco	TA661640	\$12.95	\$11.65	\$10.49



Jameco's expanded selection of motors is on pages 101-106. We stock the largest selection of DC, Stepper (Unipolar and Bipolar), Vibrating, and DC Gear Head Motors.



## Power Transformers and Variable Transformers

### 6VAC/9VAC Dual Output Power Transformer

- 12VA
- Input voltage: 120VAC
  - Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)
  - Size: 2.1"L x 3.2"W x 2.0"H • Weight: 1.3 lbs.
- SALE**
- | Part No. | Mfr. Cross Ref. No. | 1      | 10     | 100    |
|----------|---------------------|--------|--------|--------|
| 183089CR | YS57H-099FAA        | \$3.95 | \$3.56 | \$2.84 |



### 120VAC to 120VAC Isolation Transformer

- 300VA
- Quantity SAVE**
- Input voltage: 120VAC @ 60Hz
  - Input connector: 5.5' cord with 2-prong plug
  - Output voltage: 120VAC @ 2.5A (isolated)
  - Size: 4.2"H x 3.2"W x 4.6"D • Weight: 7.0 lbs.
- | Part No. | Mfr. Cross Ref. No. | 1       | 10      | 100     |
|----------|---------------------|---------|---------|---------|
| 181315CR | ITR300              | \$44.95 | \$38.21 | \$28.66 |



### EMI Suppression Cores with Case

Reduce Electro Magnetic Interference (EMI) with a snap of these suppression cores around a power cord or data cord. Easy to install and an affordable way to reduce EMI without redesigning your product.



Part No.	Size (OutDia. x InDia. x L)	1	10	100
218173CR	.64" x .20" x 1.15"	\$ .99	\$ .89	\$ .79
217841CR	.78" x .34" x 1.40"	1.45	1.29	1.15

Even lower OEM pricing for larger orders!

### Corporate Customers

Call 1-800-831-4242 for details today.

### 320VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz (using pin 1-2) 110VAC @ 50Hz (using pin 1-4)
- Matching input/output terminals: P/N 103667CR and 109111CR (disconnect .25" solderless terminals), pg 99
- Maximum current: 2.5A
- Size: 2.8"Dia. x 2.1"H
- Weight: 2.5 lbs.
- Panel mount
- Shaft length: 0.5"
- One-year warranty



Includes: 3 disconnect .25" solderless terminals

Part No.	Description	1	10	50
149323CR	320VA variable	\$53.95	\$48.59	\$43.75

### 550VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz
- Output voltage: 0-140VAC
- Rated current: 5A
- Panel mount
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs. • One-year warranty



Part No.	Description	1	10	50
152936CR	550VA variable	\$62.95	\$56.66	\$50.99

### 500VA & 2000VA Variable Transformers

- Input voltage: 110VAC @ 60 Hz
- Power: 500 or 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input conn.: 3-prong plug w/ 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch
- 169640CR: • 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.
- 169658CR: • 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H
- Weight: 26.5 lbs.



169640CR



169658CR

Part No.	Description	1	10	50
169640CR	500VA trans.	\$84.95	\$76.49	\$68.85
169658CR	2000VA trans.	124.95	112.49	101.25

### 500-2000VA Variable Transformers

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch



121275CR

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275CR	3A/250V (P/N 69438CR)	5.3 x 7.3 x 7.0	10.4
129007CR	5A/250V (P/N 10401CR)	9.4 x 6.5 x 7.7	14.8
152581CR	10A/250V (P/N 69462CR)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275CR	500VA trans.	\$79.95	\$69.95	\$62.95
129007CR	1000VA trans.	164.95	148.49	133.65
152581CR	2000VA trans.	174.95	158.45	139.95

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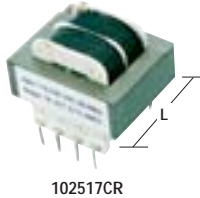
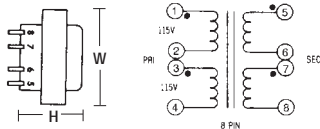
## Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50-60Hz
- PC terminal pin spacing for accurate placement

New Lower Prices

SALE



Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions			Wt. (lbs.)	Pricing			
								L"	W"	H"		1	10	100	
221292CR	DSW-312	FS12200	115/230	2.5	6.3V @ .20A	6.3V @ .40A	12.6VCT @ .20A	1.38	1.13	1.19	0.3	56.65	\$4.95	\$4.21	\$3.16
102533CR	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.0A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	7.29	6.49	5.75	
102517CR	XFR1602SB	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	5.65	4.80	3.60	
221284CR	DSW-316	FS16150	115/230	2.5	8V @ .15A	8V @ .30A	16VCT @ .15A	1.38	1.13	1.19	0.3	3.99	3.61	3.25	
210921CR	14A-10-ZOB21	—	115/230	10.0	10V @ .05A	10V @ 1.0A	20VCT @ 0.5A	1.88	1.56	1.38	0.5	57.49	92	4.47	4.07
210948CR	DPC20-60B13	—	115/230	1.2	10V @ .06A	10V @ .12A	20VCT @ .06A	1.63	1.25	1.38	0.2	38.86	2.95	2.68	2.44
210956CR	DST2-24-845	—	115/230	1.1	12V @ .045A	12V @ .09A	24VCT @ .045A	1.13	1.13	0.94	0.2	6.49	5.85	5.25	
221305CR	DSW-324	FS24100	115/230	2.5	12V @ .10A	12V @ .20A	24VCT @ .10A	1.38	1.13	1.19	0.3	3.99	3.61	3.25	
176090CR	SPT41240-120	FS24250	115/230	6.0	12V @ .25A	12V @ .50A	24VCT @ .25A	1.33	1.63	1.59	0.5	6.95	6.25	5.59	
102592CR	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	8.79	7.95	5.49	
249412CR	DST-5-16	—	115/230	12.8	8V @ .80A	8V @ 1.6A	16VCT @ .80A	1.57	1.88	1.42	0.6	8.95	8.09	7.25	
210930CR	PC34-35-B21	—	115	1.2	17V @ .035A	17V @ .07A	34VCT @ .035A	1.38	1.13	1.19	0.2	54.34	3.19	2.90	2.64
210964CR	LP40-300-B14	—	115/230	12.0	20V @ .30A	20V @ 0.6A	40VCT @ 0.3A	2.50	2.00	1.07	0.7	5.83	5.30	4.82	
209015CR	ST-6-48	—	115	19.2	24V @ .40A	24V @ .80A	48VCT @ .40A	1.88	2.25	1.40	0.8	57.95	3.75	3.41	3.10

## Quick-Connect Power Transformers

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50-60Hz

New Lower Prices

Quantity SAVE

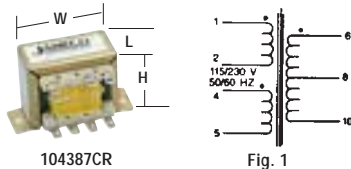


Fig. 1

Part Number	Mfr. Cross Ref. No.	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions			Wt. (lbs.)	Pricing		
								L"	W"	H"		1	10	100
104387CR	XFR1225Q	FD612	1	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	\$9.29	\$8.65	\$7.05
104408CR	XFR1635Q	FD716	1	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	12.95	11.01	8.26
101864CR	XFR2424Q	FD724	1	115/230VAC	24VCT @ 2.4A	57.6	0.187"	2.40	2.70	2.25	1.7	11.95	10.16	7.62
104416CR	XFR3615Q	FD736	1	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	9.95	8.99	8.09

## 115VAC and 115/230VAC Power Transformers

Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier and filter circuits.

- Primary: 115VAC or 115/230VAC, 50-60Hz



29225CR

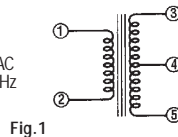


Fig. 1

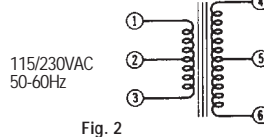


Fig. 2

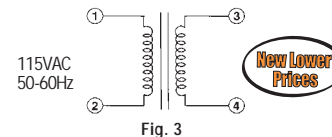
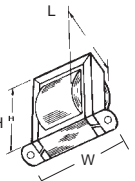


Fig. 3



Part Number	Mfr. Cross Ref. No.	Triad Cross	Primary			VA Cap	Secondary			Lead Type	Fig.	Dimensions			Wt. (lbs.)	Pricing				
			Color Code				Voltage					Color Code				L"	W"	H"	1	10
102162CR	XFR6102	F314X	Black	Yellow*	Red	7.6	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	\$8.49	\$7.22	\$5.41	
105523CR	XFR0910	—	Black	White*	Red	9.0	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	6.95	5.91	4.43	
221401CR	P-8391	F216X	Black	—	Black	4.2	12VAC @ 0.35A	White	—	White	Wire	3	1.38	2.38	1.38	0.4	\$4.95	4.45	3.78	2.84
221399CR	P-8657	F218X	Black	—	Black	24.0	12VAC @ 2A	White	—	White	Wire	3	2.13	3.25	2.00	1.3	9.15	8.49	7.15	
221356CR	P-8658	F219X	Black	—	Black	48.0	12VAC @ 4A	White	—	White	Wire	3	2.25	4.00	2.63	2.3	12.95	11.95	9.95	
29225CR	XFR122	F44X	Yellow	—	Yellow	25.2	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	9.95	8.46	6.34	
102154CR	XFR1220	F344X	Black	Yellow*	Red	25.2	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	10.95	9.39	6.99	
149770CR	XFR1240	F3181U	Black	Red*	Yellow	50.4	12.6VCT @ 4A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.2	12.95	11.69	10.49	
102120CR	XFR124	F181U	Black	—	Black	50.4	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	12.95	11.69	10.49	
105531CR	XFR1810	—	Blue	Red*	Black	18.0	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	6.95	5.69	4.25	
149956CR	XFR1820	—	Black	Red*	Yellow	36.0	18VCT @ 2A	White	Black*	White	Wire	2	2.26	2.66	2.28	1.8	8.95	7.95	6.95	
221381CR	P8396	—	Black	—	Black	9.6	24VCT @ 0.4A	White	Black*	White	Wire	1	1.63	2.8	1.5	0.6	6.95	6.26	5.63	
102111CR	XFR2410	F346X	Black	Yellow*	Red	24.0	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	8.95	7.61	5.71	
221372CR	P-8662	F192X	Black	—	Black	48.0	24VCT @ 2A	White	Black*	White	Wire	1	2.38	4.00	2.62	2.3	11.95	10.95	9.19	
112512CR	XFR242N	F229X	Black	—	Black	48.0	24VAC @ 2A	White	—	White	Wire	3	2.21	3.58	2.25	1.8	9.79	8.85	7.95	
221364CR	P-8663†	F193U	—	—	—	96.0	24VCT @ 4A	—	—	—	Lug	1	2.81	3.13	3.81	4.0	18.95	17.85	14.95	
221410CR	P-8666†	F226U	—	—	—	288.0	24VCT @ 12A	—	—	—	Lug	1	4.63	3.75	4.63	11.2	\$38.90	34.95	31.96	28.97
99653CR	XFR242	—	Red	—	Red	49.2	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.44	2.70	2.30	2.5	10.95	9.31	6.98	
102103CR	XFR2520	F341X	Black	White*	Red	50.4	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.45	2.67	2.26	2.8	14.95	12.71	9.53	
149796CR	XFR2820	F3185U	Black	Red*	Yellow	56.0	28VCT @ 2A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.3	12.95	11.69	8.59	

\* Center tap

† Solder terminals

Sale items highlighted in yellow.

Jameco Special Values!

Great quantity discounts highlighted in green.

Quantity  
**SAVE**

## International Step-Up/Step-Down Auto and Isolation Transformers

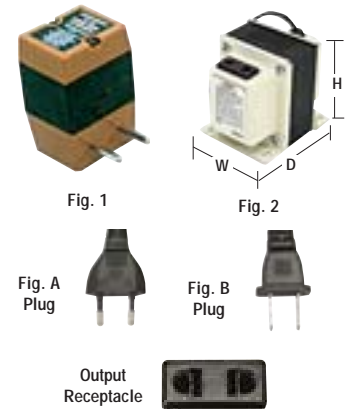
New Lower  
Prices

**SALE**

- Wide selection to meet your power requirements

Part Number	Mfr. Cross Ref. No. *	Fig.	Type	Primary Voltage	Secondary Voltage	Power (VA)	Dimensions			Weight (lbs.)	Pricing		
							H"	W"	D"		1	10	100
99573CR	AC110V50	1/A	Auto	220VAC	110VAC	50	2.50	1.63	1.33	0.7	\$9.95	\$8.99	\$8.09
85016CR	AC110V300	2/A	Auto	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
111851CR	AC110V500	2/A	Auto	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49	28.95
221250CR	GSD-1000	2/A	Auto	220VAC	110VAC	1000	4.63	3.81	6.06	17.0	<del>\$68.95</del> 59.95	50.96	38.22
142906CR	AC110V1500	2/A	Auto	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	67.96	50.97
99477CR	AC220V50	1/B	Auto	110VAC	220VAC	50	2.50	1.63	1.33	0.7	8.95	8.09	7.25
221233CR	P8638	2/B	Auto	110VAC	220VAC	125	3.13	2.50	3.00	3.0	<del>\$28.95</del> 23.95	20.36	15.27
85008CR	AC220V300	2/B	Auto	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	23.76	17.82
221217CR	P8689	2/B	Auto	110VAC	220VAC	1000	4.63	3.75	6.13	17.0	61.95	57.55	43.85
221313CR	G1SD-500	2/A	Isolation	220VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	69.95	57.49
222092CR	G1SD-1000	2/A	Isolation	220VAC	110VAC	1000	5.38	4.38	8.13	31.0	149.95	127.46	95.59
221348CR	G1S-250	2/B	Isolation	110VAC	110VAC	250	4.69	3.75	4.38	9.0	40.49	36.44	32.80
221330CR	G1S-500	2/B	Isolation	110VAC	110VAC	500	4.69	3.75	6.00	16.0	78.95	69.95	57.49

\* Manufacturer may vary



## International Power Cords

- 3-conductor detachable power cords
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- BSI: British Standard Institution



Cord Configuration Chart – End 1



Cord Configuration Chart – End 2



117911CR (Fig. 1)

174633CR (Fig. 2)

Part Number	Mfr. Cross Reference No. *	Country	Agency Approvals	Cord Plug Fig.		Length	Cord Color	Conductors	Cord Type	Pricing			
				End 1	End 2					1	10	100	250
117911CR	PCVDE-6B	Europe	All in Fig. 3	A	1	6 ft.	Black	3/.75mm <sup>2</sup>	H05VVf	\$5.49	\$4.95	\$4.45	\$3.75
174633CR	21071H5182	UK/Ireland	BSI	A	2	8 ft.	Black	3/1.0mm <sup>2</sup>	H05VVf	6.49	5.84	5.26	4.73

\* Manufacturer may vary

European Agency Approvals

Germany	VDE	
Austria	OVE	
Belgium	CEBEC	
Denmark	DEMKO	
Finland	FIMKO	
France	LCIE	
Netherlands	KEMA	
Norway	NEMKO	
Sweden	SEMKO	
Switzerland	SEV	

Fig. 3

## Power Entry Filters and AC Receptacles



Fig. 1 (146907CR)

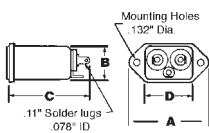


Fig. 2 (Solder Terminals)

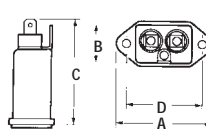


Fig. 3 (Fast-on Terminals)



Fig. 4 (210913CR)

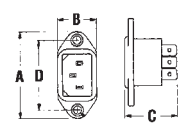


Fig. 5 (Male)



- Frequency: 50/60Hz

**SALE**

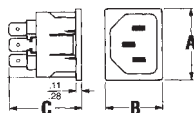


Fig. 6 (Female)

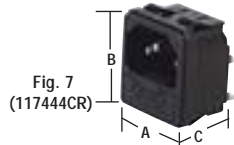


Fig. 7 (117444CR)

Quantity  
**SAVE**

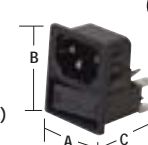


Fig. 8 (184903CR)

New Lower  
Prices



Fig. 9 (265527CR)

Part Number	Mfr. Cross Ref. No. *	Corcom Cross	Description	Fig.	Current (A)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	Dimension (inches)				Pricing			
										A	B	C	D	1	10	100	500
146907CR	03DENG3B*	3EF1	Power entry filter (snap-in)	1	3	250	fast-on	UL/CSA/VDE	.25"	1.25	0.95	2.23	N/A	\$4.95	\$4.45	\$3.39	\$2.49
150615CR	03AC1	3EF1	Power entry filter, straight (flanged)	2	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	5.95	5.36	4.82	4.34
42454CR	06AC1	6EF1	Power entry filter, straight (flanged)	2	6	250	solder	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	8.95	8.06	6.44	4.83
165016CR	SUP-J15G-E-2		Power entry filter, straight (flanged)	2	15	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.18	1.58	5.95	5.35	4.85	4.05
40601CR	03AE1*	3EF1F	Power entry filter, straight (flanged)	3	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	5.95	5.36	4.28	3.19
63132CR	06AE1	6EF1F	Power entry filter, straight (flanged)	3	6	250	fast-on	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	6.95	6.29	5.65	5.09
217744CR	10AE1	10EF1F	Power entry filter, straight (flanged)	3	10	250	fast-on	UL/CSA/VDE	.25"	1.96	0.89	2.23	1.58	<del>\$6.18</del> 4.45	4.01	3.65	3.32
220206CR	10GEEG3E		Power entry filter, straight (flanged)	3	10	250	solder	UL/CSA/VDE	.16"	1.96	0.87	2.16	1.58	4.85	4.34	3.90	3.51
210913CR	01GEEW3E		Power entry filter, straight (flanged)	4	1	250	wire	UL/CSA/VDE	4.1"	2.05	0.99	1.78	1.58	5.95	5.36	4.28	3.19
147109CR	42R02		AC power inlet (male) snap-in	5	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	.26	.23	.21	.19
16651CR	JR101		AC power inlet (male) flanged	5	15	250	fast-on	UL/CSA/VDE	.187"	1.96	0.89	1.07	1.58	.79	.71	.57	.41
147900CR	P0707*		AC power inlet (male) flanged	5	15	250	solder	UL/CSA/VDE	.16"	1.96	0.89	1.04	1.58	<del>\$7.55</del> .69	.62	.50	.37
218288CR	0708-1-CQ		AC power outlet (female) flanged	6	10	250	fast-on	UL/CSA/VDE	.189"	1.97	1.14	1.27	1.58	.79	.71	.57	.43
117444CR	0717 <sup>1</sup>		AC power inlet (male) fused (snap-in)	7	10	250	fast-on	UL/CSA/VDE	.187"	1.18	1.30	1.21	N/A	1.95	1.79	1.59	1.45
265527CR	WS-044		AC power inlet (male) fused	9	10	250	fast-on	UL/CSA/VDE	.185"	1.73	1.29	0.77	1.42	1.79	1.59	1.39	1.29
184903CR	42R36315210U		AC power inlet (male) w/ switch (snap-in)	8	15	250	fast-on	UL/CSA/VDE	.25"	1.30	1.58	1.42	N/A	1.95	1.69	1.39	1.05

\* Manufacturer may vary

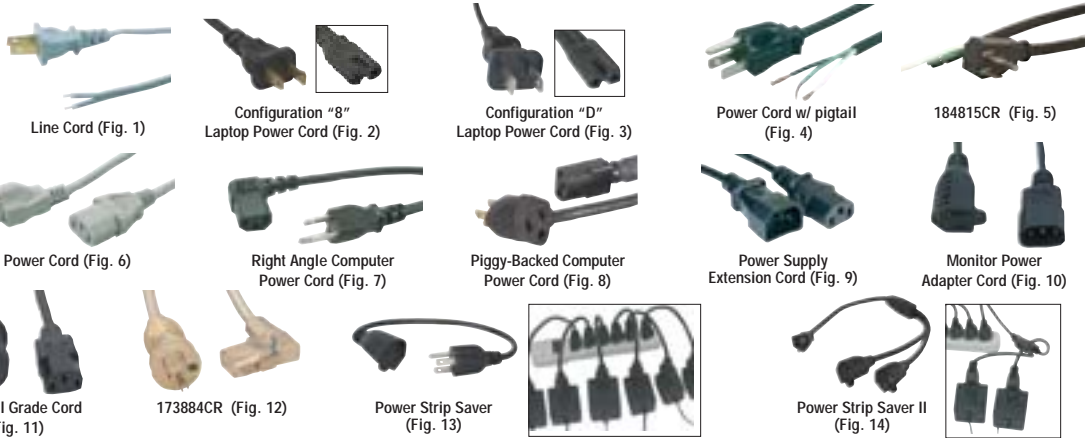
<sup>1</sup> Includes spare fuse holder – Fuse type 5mm x 20mm (250V)

# Power Cords

Color Code Legend  
New Sale Qty. Save Closeout

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature:  
-20°C to +60°C
- Voltage rating: 300 volts

**SALE**



UL  
SA  
New Lower Prices  
Quantity  
**SAVE**

Part Number	Mfr. Cross Reference No.	Description	Weight (lbs.)	Agency Approvals	Plug Fig.	Length	Color	AWG	Cord Type*	Pricing			
										1	10	100	250
152186CR	17106BG	2-conductor power cord with pigtail	.20	UL/CSA	1	6'	Beige	18/2	SPT-2	\$1.09	\$ .98	\$ .78	\$ .59
124433CR	ST008	2-conductor power cord with pigtail	.16	UL/CSA	1	6'	Black	18/2	SPT-2	1.15	1.03	.83	.69
42041CR	17106	2-conductor power cord with pigtail with strain relief	.25	UL/CSA	1	6'	Black	18/2	SPT-2	1.15	1.03	.83	.62
146309CR	PC182J6	2-conductor power cord with pigtail (round)	.31	UL/CSA	1	6'	Black	18/2	SJT	.99	.79	.59	.42
189587CR	VW-1	2-conductor "8" style power cord for laptops and power supplies	.30	UL/CSA	2	6'	Black	18/2	SPT-2	2.95	2.65	2.25	1.69
200791CR	LL114039	2-conductor "D" style power cord for laptops and power supplies	.30	UL/CSA	3	6'	Black	18/2	SPT-2	2.95	2.69	2.39	1.45
38009CR	17237	3-conductor power cord with pigtail	.31	UL/CSA	4	6'	Gray	18/3	SVT	2.39	2.15	1.94	1.74
173809CR	17405	3-conductor power cord with pigtail	.39	UL/CSA	4	6'	Gray	18/3	SJT	2.39	2.15	1.72	1.29
37997CR	17236	3-conductor power cord with pigtail	.30	UL/CSA	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
279662CR	32V86S	3-conductor power cord with pigtail	.32	UL/CSA	4	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
159409CR	17405B	3-conductor power cord with pigtail	.37	UL/CSA	4	6'	Black	18/3	SJT	2.59	2.15	1.95	1.79
38025CR	17238	3-conductor power cord with pigtail	.39	UL/CSA	4	8'	Black	18/3	SVT	3.29	2.75	2.45	2.25
102007CR	17535B	3-conductor power cord with pigtail	.49	UL/CSA	4	10'	Black	18/3	SVT	3.25	2.92	2.63	2.20
196285CR	LL40378	3-conductor power cord with pigtail	.80	UL/CSA	4	10'	Black	16/3	SJT	3.49	3.14	2.51	1.88
166924CR	17516	3-conductor power cord with pigtail	.67	UL/CSA	4	6' 7"	Black	14/3	SJT	3.95	3.56	2.84	2.13
100271CR	17629B	3-conductor power cord with pigtail	.88	UL/CSA	4	9'	Black	14/3	SJT	4.25	3.82	3.06	2.37
184815CR	17629BR	3-conductor right angle power cord with pigtail	.77	UL/CSA	5	7'	Black	14/3	SJT	2.95	2.73	2.52	2.32
103747CR	17248	3-conductor power supply cord	.34	UL/CSA	6	6'	Gray	18/3	SVT	3.89	3.50	2.80	2.49
213874CR	17660BG	3-conductor power supply cord (shielded)	.40	UL/CSA	6	6'	Beige	18/3	SVT	3.59	3.25	2.95	2.65
38041CR	17249	3-conductor power supply cord	.37	UL/CSA	6	6'	Beige	18/3	SVT	3.49	3.15	2.79	2.49
38050CR	17250	3-conductor power supply cord	.36	UL/CSA	6	6'	Black	18/3	SVT	3.75	3.29	2.89	2.17
161761CR	17742	3-conductor power supply cord (shielded)	.40	UL/CSA	6	6'	Black	18/3	SVT	4.49	4.04	3.23	2.42
132118CR	17500	3-conductor power supply cord	.44	UL/CSA	6	6'	Black	18/3	SJT	4.49	4.04	3.23	2.42
117583CR	17502	3-conductor power supply cord	.37	UL/CSA	6	8'	Gray	18/3	SVT	3.49	3.14	2.51	1.88
171096CR	17758	3-conductor power supply cord	.60	UL/CSA	6	8'	Black	18/3	SJT	3.95	3.55	3.19	2.89
229219CR	9350819	3-conductor power supply cord (shielded)	.45	UL/CSA	6	8'	Black	18/3	SJT	4.49	4.04	3.23	2.42
102023CR	17501V	3-conductor power supply cord	.55	UL/CSA	6	10'	Black	18/3	SVT	3.95	3.39	3.09	2.79
192727CR	17501J	3-conductor power supply cord	.64	UL/CSA	6	10'	Black	18/3	SJT	3.95	3.59	2.89	2.15
190625CR	37805	3-conductor power supply cord (shielded)	.75	UL/CSA	6	10'	Beige	18/3	SJT	3.49	3.14	2.51	1.88
163361CR	6952299	3-conductor power supply cord	.33	UL/CSA	6	14'	Black	18/3	SJT	5.39	4.85	4.39	3.95
159361CR	17602	3-conductor power supply cord	.57	UL/CSA	6	6'	Black	16/3	SJT	3.79	3.41	2.73	2.05
142607CR	17502	3-conductor power supply cord (shielded)	.63	UL/CSA	6	6'	Black	16/3	SJT	4.19	3.79	3.39	3.05
249383CR	LL34977	3-conductor power supply cord	.72	UL/CSA	6	9'	Black	16/3	SJT	3.95	3.55	3.19	2.89
125541CR	17504	3-conductor power supply cord	.71	UL/CSA	6	6' 7"	Black	14/3	SJT	4.95	4.25	3.35	2.50
117356CR	8120-6177	3-conductor right angle power supply cord	.41	UL/CSA	7	6'	Gray	18/3	SVT	3.95	3.19	2.39	1.69
38076CR	17250R	3-conductor right angle power supply cord	.54	UL/CSA	7	6'	Black	18/3	SVT	3.49	3.15	2.85	2.55
173251CR	17250RS	3-conductor right angle power supply cord (shielded)	.40	UL/CSA	7	6'	Black	18/3	SVT	3.29	2.99	2.69	2.39
177383CR	17507	3-conductor right angle power supply cord	.66	UL/CSA	7	10'	Black	18/3	SJT	3.95	3.59	3.19	2.69
84937CR	17669-6	3-conductor piggy backed computer power cord	.47	UL/CSA	8	6'	Black	18/3	SJT	6.95	6.29	5.05	3.79
28468CR	PEC	3-conductor computer power supply extension cord	.36	UL/CSA	9	6'	Black	18/3	SVT	3.90	3.51	2.81	2.11
121291CR	PEC2	3-conductor computer power supply extension cord	.55	UL/CSA	9	8'	Black	18/3	SJT	1.88	1.69	1.52	1.37
175855CR	PECUL10	3-conductor computer power supply extension cord	.53	UL/CSA	9	10'	Black	18/3	SVT	2.95	2.66	2.12	1.59
177447CR	MPC1	3-conductor monitor power adapter cord	.16	UL/CSA	10	1'	Black	18/3	SVT	2.95	2.49	2.15	1.79
132011CR	17006G	3-conductor power cord w/ hospital grade male (green dot)	.82	UL/CSA	11	10'	Gray	16/3	SJT	8.45	7.65	6.15	4.59
265412CR	EXIT0W	3-conductor power cord w/ hospital grade male (green dot)	.70	UL/CSA	11	10'	Gray	18/3	SJT	7.99	7.29	6.55	5.89
115078CR	17006	3-conductor power cord w/ hospital grade male (green dot)	.84	UL/CSA	11	10'	Black	16/3	SJT	8.95	8.05	6.45	4.89
173884CR	3472WJ698G	3-conductor power cord w/ hospital grade male rt ang (green dot)	.85	UL/CSA	12	9'	Gray	16/3	SJT	7.95	7.19	6.45	5.45
199777CR	PSS-1	3-conductor power cord (power strip saver)	.16	UL/CSA	13	1'	Black	18/3	SVT	1.69	1.55	1.39	1.25
208338CR	SY0527BG	3-conductor power cord (power strip saver)	.16	UL/CSA	13	1'	Beige	18/3	SVT	1.69	1.45	1.09	1.09
208346CR	GPR-2006	3-conductor power cord ("Y" type power strip saver)	.38	UL/CSA	14	2'	Black	18/3	SVT	2.89	2.75	2.59	2.59

\* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service



## Lead Acid Batteries

- Sealed
- UL approved
- Rechargeable
- Two-year warranty



264014CR

264022CR

264031CR

264049CR

264057CR

264065CR

264073CR

Part Number	Product Number	Nominal Voltage	Amp-Hrs.	Cross Reference				Terminal Size	Size (L" x W" x H")	Wt. (lbs.)	Pricing	
				Panasonic	YUASA	Eagle Picher	Tempest				1	10
264014CR	TY-6-4.5	6	4.5	LCR6VP	NP4-6	CF16V4	TR-4-6	Quick Connect 0.187"	2.8 x 1.9 x 4.0	1.9	\$8.99	\$7.89
264022CR	TY-6-10	6	10.0	LCR6V10P	NP10-6	CFM6V10	TR10-6	Quick Connect 0.187"	5.9 x 2.0 x 3.9	4.6	14.45	12.97
264031CR	TY-12-2.3	12	2.3	LCR12V2.2P	NP2.3-12	CF12V1.5	TR2.3-12	Quick Connect 0.187"	7.0 x 1.3 x 2.4	2.1	15.39	14.59
264049CR	TY-12-4.5	12	4.5	LCR12V4PF	NP412	CF12V4	TR4-12	Quick Connect 0.187"	3.5 x 2.8 x 4.0	3.8	15.79	14.55
264057CR	TY-12-7	12	7.0	LCR12V7.2BP	NP712	CFM12V65	TR7.5-12	Quick Connect 0.187"	5.9 x 2.6 x 3.7	5.6	16.95	15.15
264065CR	TY-12-12	12	12.0	PS12120	—	CFM12V12	TR12-12	Quick Connect 0.187"	5.9 x 3.9 x 3.9	9.0	30.65	28.25
264073CR	TY-12-18	12	18.0	LCR12V17BP	NPG18-12	CF12V18	TR18-12	Quick Connect 0.472"	7.1 x 3.0 x 6.6	13.3	32.85	28.15



## Lead Acid Batteries

- Color-coded terminals
- Sealed
- Rechargeable
- UL approved
- Two-year warranty

New Lower Prices



SALE



218384CR

218430CR

218376CR

Tempest is an ISO-9001 Certified Company

Part Number	Product Number	Nominal Voltage	Amp-Hrs.	Charging Voltage		Cross Reference			Terminal Size	Size (L" x W" x H")	Wt. (lbs.)	Pricing	
				Standby	Cyclic	Panasonic	YUASA	Eagle Picher				1	10
218309CR	TR1.3-6	6	1.3	6.8-6.9	7.25-7.45	LC-R01R3P	NP01.2-6	CF6V1.6	Quick connect 0.185"	3.8 x 1.0 x 2.0	0.7	<del>\$6.95</del>	\$5.85
218317CR	TR5-6A	6	5	6.8-6.9	7.25-7.45	LCR6V4PL	NP4-6	CF6V4.5	Quick connect 0.185"	2.8 x 1.9 x 4.0	2.1	<del>\$11.45</del>	\$5.79
218325CR	TR5-6B	6	5	6.8-6.9	7.25-7.45	—	—	—	Spring	2.6 x 2.6 x 3.8	2.2	<del>\$9.95</del>	\$5.79
218368CR	TR14-6	6	14	6.8-6.9	7.25-7.45	—	—	—	Wire w/ power connector	4.3 x 2.8 x 5.5	6.0	22.95	20.66
218376CR	TR0.8-12	12	0.8	13.6-13.8	14.5-14.9	—	NP0.8-12	—	Wire w/ power connector	3.8 x 1.0 x 2.4	0.8	15.95	14.49
218384CR	TR1.3-12	12	1.3	13.6-13.8	14.5-14.9	LC-R121R3PU	NP1.2-12	CF12V1.3	Quick connect 0.185"	3.8 x 1.7 x 2.0	1.3	16.49	14.85
218405CR	TR3.2-12	12	3.2	13.6-13.8	14.5-14.9	LC-R123R4P	NP3.2-12	CF12V3	Quick connect 0.185"	5.3 x 2.7 x 2.4	3.1	16.95	15.26
218413CR	TR5-12	12	5	13.6-13.8	14.5-14.9	LC-R125P	NP5-12	—	Quick connect 0.185"	6.6 x 6.9 x 4.9	21.1	15.95	14.36
218421CR	TR22-12	12	22	13.6-13.8	14.5-14.9	—	—	—	Terminal pad 0.472"Dia.	7.2 x 3.0 x 6.6	15.0	39.95	35.95
218430CR	TR26-12	12	26	13.6-13.8	14.5-14.9	—	NP24-12	CFM12V2	Quick connect 0.649"	6.6 x 6.9 x 4.9	21.1	<del>\$54.95</del>	<del>49.95</del>
218448CR	TRU1-34	12	34	13.6-13.8	14.5-14.9	—	—	—	Quick connect 0.649"	7.8 x 5.2 x 6.2	25.6	57.95	52.95
218456CR	TR55-14	12	55	13.6-13.8	14.5-14.9	—	—	—	Quick connect 0.629"	9.0 x 5.4 x 8.2	39.7	<del>\$94.99</del>	<del>83.26</del>
218464CR	TR70-12B	12	70	13.6-13.8	14.5-14.9	—	—	—	Quick connect 0.590"	10.3 x 6.7 x 8.2	55.1	148.95	111.69

## Zinc Chloride, Silver Oxide & Alkaline Batteries

Quantity Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

SAVE

New Lower Prices



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

### Zinc Chloride

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
151087CR	AA	1	AA	1.5	700	Barrel Pressure	1.9"L x 0.55"Dia.	\$ .22	\$ .20	\$ .18
151095CR	GF6F22	3	9V	9	300	—	1.7"L x 1.0"W x 0.67"Dia.	1.25	.99	.79

### Silver Oxide

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
140783CR	357	2	Button	1.55	1600	—	0.454"Dia.	\$1.75	\$1.49	\$1.25

### Alkaline

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
249181CR	LR031.5V	4	AAA	1.5	—	3-pack	1.7"L x 0.40"Dia.	\$1.49	\$1.27	\$ .95
249455CR	—	5	AA	1.5	—	3-pack	1.97"L x 0.55"Dia.	1.29	1.23	1.16
150965CR	840	6	—	4.5	600	Batt. Pack w/Con. (Apple®)	1.14"L x 0.73"W x 0.96"H	9.95	8.96	6.72
198791CR	MN1604	3	9V	9	500	—	1.7"L x 1.0"W x 0.67"H	2.85	2.55	2.29

## Eveready® Energizer® Alkaline Batteries

SALE



198707CR



198715CR



198731CR



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- Single-use Energizer® alkaline batteries for heavy drain and frequent use applications
- Prepackaged: order in increments of 4

Part No.	Size	4	8	12
198707CR	AAA	\$ .64	\$ .63	\$ .62
198715CR	AAA	.67	.65	.62
Part No.	Size	1	4	
198731CR	9-volt	\$1.89	\$1.85	
215845CR	D	<del>\$1.95</del>	1.12	1.09

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## Lithium, NiCAD and NiMH Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.



Fig. 1

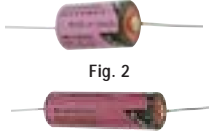


Fig. 2

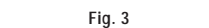


Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11

### Lithium & Lithium Ion - Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
240258CR	CR123A	1	—	3	1300	Photo/Computer	1.36"L x 0.65"Dia.	\$2.65	\$2.45	\$2.35
249471CR	CR123A*	1	—	3	1300	Photo/Computer	1.34"L x 0.65"Dia.	2.59	2.35	2.09
33371CR	TL5101P	2	1/2AA	3.6	850	Barrel w/Leads (Clock/Mem.)	0.93"L x .56"Dia.	5.79	5.27	4.45
33398CR	TL5104P	3	AA	3.6	1900	Barrel w/Leads (Clock/Mem.)	1.88"L x .56"Dia.	5.95	5.49	5.19
146114CR	TL2100S	4	AA	3.6	1900	Barrel Pres. (Clock/Mem.)	1.91"L x "Dia.	6.95	6.29	5.65
33427CR	TL5242W	5	—	3.6	1900	Battery Pack w/Plug (PC)	2.38"L x 0.65"W x 0.71"H	7.49	6.75	6.09
33443CR	TL5293W	6	—	6	1900	Battery Pack w/Plug (PC)	2.28"L x 1.49"W x 0.78"H	8.49	7.64	6.88
240186CR	CR1616	—	Coin Cell	3	55	Clock/memory/watch	0.07"Dia. x 0.61"Th.	.69	.63	.60
240207CR	CR2016	—	Coin Cell	3	75	Clock/memory/watch	0.07"Dia. x 0.79"Th.	.38	.36	.34
240215CR	CR2025	—	Coin Cell	3	150	Clock/memory/watch	0.10"Dia. x 0.78"Th.	.32	.30	.28
11789CR	CR2325	7	Coin Cell	3	165	Clock/memory/watch	0.91"Dia. x 0.13"Th.	1.65	1.47	1.25
252232CR	BR2325/1VG	8	Coin Cell	3	175	Vertical, PC Mount	1.00"Dia. x 0.90"Th.	1.49	1.39	1.35
14162CR	CR2032	—	Coin Cell	3	180	Clock/memory/watch	0.79"Dia. x 0.13"Th.	1.25	1.00	.75
240223CR	CR2335	—	Coin Cell	3	300	Clock/memory/watch	0.14"Dia. x 0.92"Th.	1.22	1.11	1.00
240231CR	CR2450	—	Coin Cell	3	500	Clock/memory/watch	0.18"Dia. x 0.97"Th.	1.09	.93	.69
126754CR	TL5101S	9	Sub-AA	3.6	850	Macintosh®	0.95"L x 0.56"Dia.	6.95	6.29	5.65
240266CR	ER14250	10	Sub-AA	3.6	1000	Consumer Tip	1.00"L x 0.55"Dia.	3.99	3.89	3.81
263898CR	ER14250	11	Sub-AA	3.6	1000	With axial leads	1.00"L x 0.55"Dia.	4.29	4.11	3.90
263978CR	ER14335	11	Sub-AA	3.6	1450	With axial leads	1.30"L x 0.55"Dia.	4.79	4.62	4.36
263951CR	ER14335	12	Sub-AA	3.6	1450	With solder tabs	1.30"L x 0.55"Dia.	4.59	4.43	4.19
240282CR	ER14335	13	Sub-AA	3.6	1450	Consumer Tip	1.30"L x 0.55"Dia.	4.59	4.45	4.19
263943CR	ER14505	14	AA	3.6	2100	With axial leads	2.00"L x 0.57"Dia.	5.35	4.99	4.70
240303CR	ER14505	15	AA	3.6	2400	Consumer Tip	2.00"L x 0.55"Dia.	5.19	4.85	4.55
263935CR	ER14505	16	AA	3.6	2100	With solder tabs	2.00"L x 0.55"Dia.	4.99	4.75	4.52
240320CR	ER17335	17	Sub-A	3.6	1450	Consumer Tip	1.30"L x 0.67"Dia.	5.25	4.75	4.39
264217CR	ER17335	—	Sub-A	3.6	1450	With axial leads	1.30"L x 0.67"Dia.	5.55	4.99	4.59
263986CR	ER26500	—	C	3.6	8500	With axial leads	2.00"L x 1.02"Dia.	13.19	12.42	11.67
240160CR	ER26500	18	C	3.6	8500	Consumer Tip	2.00"L x 1.02"Dia.	11.95	11.50	11.05
263994CR	ER34615	—	D	3.6	16,500	With axial leads	2.40"L x 1.34"Dia.	16.65	15.68	14.73
240151CR	ER34615	19	D	3.6	16,500	Consumer Tip	2.40"L x 1.34"Dia.	15.05	14.49	13.95
244646CR	UR18650H1	20	—	3.6	2200	Flat Top Lithium Ion (rechargeable)	2.60"L x 0.71"Dia.	17.55	15.79	14.21

\* Samsung

### NiCAD - Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244662CR	AAA-240	21	AAA	1.2	240	Flat top	1.70"L x 0.40"Dia.	\$1.89	\$1.85	\$1.80
244540CR	AAA-240-CT	22	AAA	1.2	240	Consumer Tip	1.70"L x 0.40"Dia.	1.89	1.85	1.80
244380CR	2/3AA-320	23	2/3AA	1.2	320	Flat Top	1.10"L x 0.55"Dia.	1.35	1.17	1.09
244443CR	4/5AA-600	24	4/5AA	1.2	600	Flat Top	1.70"L x 0.55"Dia.	1.15	1.03	.93
244486CR	AA-600	25	AA	1.2	600	Flat Top	1.90"L x 0.55"Dia.	1.25	1.22	1.19
244507CR	AA-1000	25	AA	1.2	1000	Flat Top	1.90"L x 0.55"Dia.	2.65	2.43	2.33
261657CR	AA-700-CT	26	AA	1.2	700	Consumer Tip	1.90"L x 0.55"Dia.	1.37	1.25	.96
244515CR	AA-1000-CT	26	AA	1.2	1000	Consumer Tip	1.90"L x 0.55"Dia.	2.65	2.43	2.33
244355CR	1/3A-250	27	1/3A	1.2	250	Flat Top	0.65"L x 0.65"Dia.	1.31	1.18	1.06
244371CR	2/3A-650	28	2/3A	1.2	650	Flat Top	1.10"L x 0.65"Dia.	1.79	1.65	1.60
244603CR	2/3A-100HD	28	2/3A	1.2	1100	Flat Top	1.10"L x 0.65"Dia.	1.99	1.81	1.71
244427CR	4/5A-1100	29	4/5A	1.2	1100	Flat Top	1.70"L x 0.65"Dia.	1.65	1.45	1.39
244574CR	SC-1500	30	Sub-C	1.2	1500	Flat Top	1.70"L x 0.89"Dia.	2.15	1.98	1.87
244953CR	SC-1500HT	30	Sub-C	1.2	1500	Flat Top, High Temp.	1.70"L x 0.89"Dia.	2.39	2.14	2.00
244654CR	SC-1900	30	Sub-C	1.2	1900	Flat Top	1.70"L x 0.89"Dia.	3.68	3.23	3.08
244398CR	2/3SC-650	31	2/3SC	1.2	650	Flat Top	1.00"L x 0.89"Dia.	2.85	2.50	2.36
244401CR	2/3SC-700	31	2/3SC	1.2	700	Flat Top	1.00"L x 0.89"Dia.	3.15	2.73	2.52
244451CR	4/5SC-1250	—	4/5SC	1.2	1250	Flat Top	1.30"L x 0.89"Dia.	2.85	2.56	2.35
244460CR	5/4SC-2300	—	5/4SC	1.2	2300	Flat Top	1.90"L x 0.89"Dia.	6.05	5.57	5.05
244363CR	1/3C-700	—	1/3C	1.2	700	Flat Top	0.87"L x 1.00"Dia.	2.59	2.33	2.10
244339CR	1/2C-800	32	1/2C	1.2	800	Flat Top	0.95"L x 1.00"Dia.	2.87	2.58	2.32
244671CR	C-2000	33	C	1.2	2000	Flat Top	1.90"L x 1.00"Dia.	4.25	3.96	3.92
244523CR	C-2200-CT	34	C	1.2	2200	Consumer Tip	1.90"L x 1.00"Dia.	4.25	3.96	3.92
244531CR	C-2500-CT	34	C	1.2	2500	Consumer Tip	1.90"L x 1.00"Dia.	5.15	4.86	4.65



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 32



Fig. 33



Fig. 34

## NiCAD and NiMH Batteries (continued)

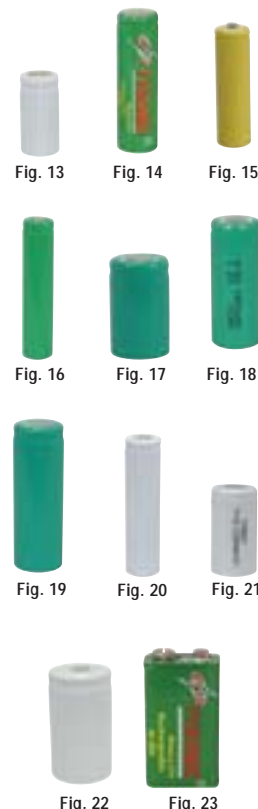


## NiCAD – Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244961CR	C-2500HT	1	C	1.2	2500	Flat Top, High Temp	1.90"L x 1.00"Dia.	\$5.25	\$4.74	\$4.60
244689CR	C-2500	1	C	1.2	2500	Flat Top	1.90"L x 1.00"Dia.	5.15	4.86	4.65
244347CR	1/2D-2200	2	1/2 D	1.2	2200	Flat Top	1.40"L x 1.30"Dia.	4.29	4.05	3.85
244566CR	2/3D-2800	—	2/3 D	1.2	2800	Flat Top	1.70"L x 1.30"Dia.	5.25	4.73	4.35
244697CR	D-5000	3	D	1.2	5000	Flat Top	2.40"L x 1.30"Dia.	7.79	7.60	7.45
244558CR	D-5000-CT	4	D	1.2	5000	Consumer Tip	2.40"L x 1.30"Dia.	7.79	7.60	7.45
244419CR	3/2D(F)-8000	5	F	1.2	8000	Flat Top	3.45"L x 1.30"Dia.	20.55	18.89	16.99
126720CR	351FT	6	—	3.6	60	2-Lead (Pin), Barrel	0.72"L x 1.28"Dia.	4.49	4.05	3.65
119116CR	3/V60R	7	—	3.6	60	3-Lead (Pin), Barrel	0.74"L x 0.61"Dia.	3.75	3.39	3.05
101653CR	NA101-1	8	—	3.6	60	2-Lead (Eyelet), Barrel	0.72"L x 0.61"Dia.	5.49	4.95	3.95

## NiMH – Rechargeable

Part Number	Mfr. Cross Ref.	Figure	Size	Volts	mAh	Terminals/Connection	Dimensions	1	10	25
244937CR	PRIZ-F6(48)-700	—	—	1.2	700	Flat Top-Prismatic	1.86"L x 0.65"W x 0.23"T	\$3.12	\$2.81	\$2.53
244945CR	PRIZ-7/5F6-1100	9	—	1.2	1100	Flat Top-Prismatic	2.63"L x 0.65"W x 0.23"T	4.11	3.69	3.33
244582CR	2/3AAA-300	10	2/3 AAA	1.2	300	Flat Top	1.11"L x 0.40"Dia.	1.49	1.25	.99
244785CR	5/4AAA-750	11	5/4 AAA	1.2	750	Flat Top	2.00"L x 0.40"Dia.	2.29	2.11	2.05
261665CR	AAA-700FT	12	AAA	1.2	700	Flat Top	1.70"L x 0.40"Dia.	2.21	1.99	1.91
244806CR	4/5AA-1200	13	4/5 AA	1.2	1200	Flat Top	1.70"L x 0.55"Dia.	3.25	2.93	2.63
244814CR	AA-1800	14	AA	1.2	1800	Flat Top	1.90"L x 0.55"Dia.	2.35	2.12	1.99
244822CR	AA-1800-CT	15	AA	1.2	1800	Consumer Tip	1.90"L x 0.55"Dia.	2.35	2.12	1.99
244831CR	4/3AA-1900	16	4/3 AA	1.2	1900	Flat Top	2.60"L x 0.55"Dia.	6.89	6.20	5.58
244857CR	2/3A-1100	17	2/3 A	1.2	1100	Flat Top	1.10"L x 0.65"Dia.	3.59	3.07	2.99
244864CR	4/5A-1800	18	4/5 A	1.2	1800	Flat Top	1.70"L x 0.65"Dia.	3.15	2.97	2.78
244970CR	A-2200	19	A	1.2	2200	Flat Top	1.90"L x 0.65"Dia.	3.69	3.49	3.25
244873CR	4/3A-2500	20	4/3 A	1.2	2500	Flat Top	2.60"L x 0.65"Dia.	5.29	5.01	4.68
244890CR	SC-2900-HD	21	Sub-C	1.2	2900	Flat Top, High Discharge	1.70"L x 0.90"Dia.	6.49	6.04	5.89
244902CR	D-9000	22	D	1.2	9000	Flat Top	2.40"L x 1.30"Dia.	21.44	17.54	16.08
244911CR	D-9000-CT	22	D	1.2	9000	Consumer Tip	2.40"L x 1.30"Dia.	21.44	17.54	16.08
244620CR	9V-200	23	9V	9	200	Flat Top	1.94"L x 0.65"Dia.	7.79	6.92	6.22



## Long-Lasting Rechargeable NiMH Batteries &amp; Chargers

Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCAD batteries, so they're ideal for power-hungry devices like digital cameras and camcorders. The chargers below are specifically designed for NiMH batteries.

## NiMH Batteries

Part No.	Description	1	10	25	100
231095CR	2x AAA, 600mAh	\$6.95	\$6.25	\$5.65	\$5.05
231087CR	4x AA, 1600mAh	13.95	12.55	11.29	10.19
231116CR	2x C, 3000mAh	10.49	9.45	8.49	7.65
231124CR	2x D, 7000mAh	19.59	17.65	15.89	14.29
231108CR	1x "9V", 150mAh	8.39	7.95	7.59	7.19

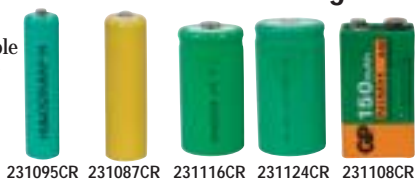
## NiMH Chargers

231141CR: Compact battery charger with 4 AA batteries

231132CR: Universal battery charger for AAA, AA, C, D and "9V" cells (batteries not included)

- Selector switch for NiCAD or NiMH type batteries
- Recharge batteries in single or group
- Automatic charging current selection for different size of batteries
- Fast charging in the specified period with automatic switch for trickle charge
- LED lamp to indicate proper charging
- Built-in IC timer control

Part No.	Description	1	5	10
231141CR	Compact AA charger	\$19.95	\$17.95	\$16.15
231132CR	Universal charger	19.95	17.95	16.15



## NiMH &amp; NiCAD Battery Charger

Charge your AA or AAA NiMH and AA NiCAD batteries with this 8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.

- Charging bay allows 4AA or 4AAA batteries to be charged at the same time (only AA NiCAD)
- Output: 4AA 1.35V @ 250mA or 4AAA 1.35V @ 95mA
- Size: 2.8" x 2.4" x 4.6" • Weight: 1.0 lb.

Part No.	Description	1	10
217533CR	Plug-in charger	<del>\$5.49</del>	\$4.29 \$3.88

## NiCAD &amp; NiMH Rapid Charger

Why buy & throw away hundreds of batteries? Now you can reuse and recharge your NiCAD and NiMH batteries and save money. Charger is portable so you can recharge your batteries in your car, office or home, in a fraction of the time it takes standard chargers. Includes 4 AA NiMH batteries, wall adapter, and cigarette adapter. Also includes discharge function.

Part No.	Description	1	10
244638CR	AA or AAA charger	\$21.15	\$20.85



**SALE**

**New Lower Prices**

**Quantity SAVE**

## Battery Holders

Eliminate battery retention problems in portable DC power applications and products. High-retention snaps are made from special materials that maintain retention properties longer than conventional snaps. They can come with leads, or attached to battery holders.

Part No.	Mfr. Cross Ref.	Fig.	No. of Cells	Connector	Sides	Features	1	10	100	500
216071CR	BH-311-2A	1	1-AA	Wires	Single		\$.69	\$.59	\$.50	\$.37
216080CR	BH-321-2A	3	2-AA	Wires	Single		.69	.59	.50	.37
216098CR	BH-321-4A	3	2-AA	Wires	Single	With mounting tabs	\$.69	.59	.53	.42
216101CR	SBH-321-2A	5	2-AA	Wires	Single	With cover, no switch	.59	.53	.42	.32
216119CR	SBH-321-1AS	5	2-AA	Wires	Single	With cover and switch	.79	.69	.57	.43
216127CR	BH-322-1B	4	2-AA	Snaps	Dual		\$.69	.59	.53	.42
216135CR	BH-331-A	6	3-AA	Snaps	Single		.89	.79	.64	.48
216143CR	SBH-331-AS	7	3-AA	Wires	Single	With cover and switch	.99	.79	.71	.53
216151CR	BH-341-2A	8	4-AA	Wires	Single		.99	.89	.71	.53
105857CR	*	12	4-AA	Wires	Single	Wires with connector	.89	.75	.64	.48
216160CR	BH-342-A	9	4-AA	Wires	Dual		\$.69	.59	.53	.42
216178CR	BH-343-1A	10	4-AA	Wires	Dual		\$.75	.65	.55	.47
216186CR	SBH-341-1AS	13	4-AA	Wires	Single	With cover and switch	1.09	.89	.85	.75
216194CR	BH-341-2B	8	4-AA	Snaps	Single		\$.76	.65	.59	.47
216207CR	BH-343-1B	10	4-AA	Snaps	Dual		\$.99	.89	.80	.64
216215CR	BH-363-A	15	6-AA	Wires	Dual		\$.95	.85	.76	.61
216223CR	BH-364-A	14	6-AA	Wires	Single		.95	.85	.69	.51
216231CR	BH-363-B	15	6-AA	Snaps	Dual		.99	.75	.69	.65
216240CR	BH-383-A	17	8-AA	Wires	Dual		\$1.19	1.09	.98	.78
216258CR	BH-382-B	16	8-AA	Snaps	Dual		1.19	.99	.89	.85
216266CR	BH-383-B	17	8-AA	Snaps	Dual		1.19	.99	.86	.64
216274CR	BH-411-1A	1	1-AAA	Wires	Single		\$.42	.39	.35	.28
216282CR	BH-421-1A	3	2-AAA	Wires	Single		.69	.59	.54	.49
216291CR	SBH-421-AS	5	2-AAA	Wires	Single	With cover and switch	\$.79	.69	.62	.50
216303CR	BH-431-1A	6	3-AAA	Wires	Single		\$.89	.79	.71	.57
216311CR	SBH-431-1AS	7	3-AAA	Wires	Single	With cover and switch	.79	.69	.57	.43
216320CR	BH-441-1A	8	4-AAA	Wires	Single		\$.99	.89	.80	.64
216338CR	SBH-441-AS	13	4-AAA	Wires	Single	With cover and switch	\$1.39	1.25	1.12	.90
216346CR	BH-211-A	1	1-C	Wires	Single		\$.62	.55	.50	.40
216354CR	BH-221-A	3	2-C	Wires	Single		1.09	.98	.78	.59
216362CR	BH-242-1A	11	4-C	Wires	Single		1.39	1.29	1.09	.99
216371CR	BH-111-1A	1	1-D	Wires	Single		.69	.59	.54	.49
216389CR	BH-121-1A	3	2-D	Wires	Single		.89	.75	.64	.48
216397CR	BH-121-1B	3	2-D	Snaps	Single		\$.99	.64	.58	.53
216400CR	BH-142-A	11	4-D	Wires	Single		1.19	.95	.85	.64
216418CR	BH-143-1A	8	4-D	Wires	Single		1.15	.89	.81	.74
216426CR	BH-9V-A	2	1-9V	Wires	Single		.79	.69	.57	.43
216434CR	BH-511-1A	1	1-N	Wires	Single		\$.69	.59	.53	.42
38535CR	2S2032	18	1-CR2032	PC Mount	Coin Cell		.59	.49	.35	.25
38543CR	2S2325	18	1-CR2354 or 2-CR2325	PC Mount	Coin Cell		.99	.89	.69	.49
<b>Special Limited Offers from Other Manufacturers</b>										
237315CR	1029	19	1-2/3AA	PC Mount	Single		\$.75	\$.69	\$.59	\$.55
236996CR	103	18	1-CR2032	PC Mount	Coin Cell		.95	.86	.68	.51

\* Battery holder used in many personal computers



Fig. 1 Fig. 2 Fig. 3



Fig. 4 Fig. 5 Fig. 6



Fig. 7 Fig. 8 Fig. 9



Fig. 10 Fig. 11 Fig. 12

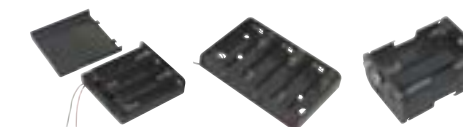


Fig. 13 Fig. 14 Fig. 15

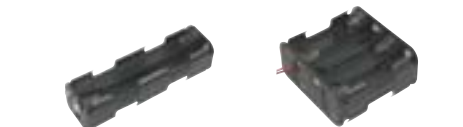


Fig. 16 Fig. 17 Fig. 18



Fig. 19 Fig. 20

## Compact Battery Tester

Simply lift the swivel arm of this battery tester and place your battery between the contacts and it will provide you a voltage measurement of your batteries. Tests AAA, AA, C, D, 9V, and button cell batteries.



Part No.	Description	Price
239556CR	Compact battery tester	\$4.99

## 9-Volt Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; contacts are nickel-plated brass
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225" • Female inner dia.: 0.215"



Fig. 1



Fig. 2

\* 10 piece minimum

Part No.	Fig.	Description	Dimensions (in.)			Pricing			
			L	W	H	1	10	100	1000
11279CR	1	3", 26 AWG, 6 prong battery snap	1.0	.50	—	\$.25	\$.22	\$.19	\$.16
105793CR	2	Battery holder clip	.63	.71	1.2	.28	.23	.16	.14
109153CR	3	6", 26 AWG, 6 prong battery snap	1.0	.50	—	*	.17	.15	.135
101469CR	3	10", 26 AWG, 6 prong battery snap	1.0	.50	—	.29	.25	.21	.14
216451CR	4	6", 26 AWG, 6 prong battery snap	1.0	.50	—	.34	.30	.20	.18



Fig. 3



Fig. 4

## Corporate Customers

Even lower OEM pricing for larger orders! Call 1-800-831-4242 for details today.



## Rechargeable Battery Packs

Jameco ValuePro™ rechargeable battery packs are available in many configurations and capacities. Each series-connected pack is available with 6" lead wires or 0.125"W x 0.4"L solder tab hook-ups. Available in economical NiCad and powerful NiMH compositions.

• AA single cell: 1.92"L x 0.56"Dia. (48.8mm x 14.2mm)

• SC single cell: 1.65"L x 0.86"Dia. (41.9mm x 21.8mm)

• D single cell: 2.36"L x 1.26"Dia. (59.9mm x 32.0mm)

## 2.4 Volts

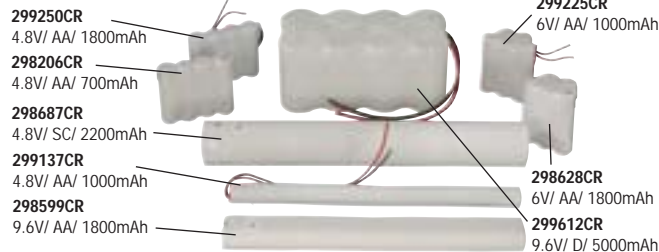
2.4 Volts			Solder Tabs			Lead Wires				
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCad	700	298097CR	\$4.35	\$4.26	\$4.14	298935CR	\$5.35	\$5.22	\$5.09
AA	NiCad	1000	298337CR	5.35	4.87	4.33	299081CR	6.55	6.32	6.05
AA	NiMH	1800	298484CR	9.39	8.54	7.59	299233CR	11.29	10.77	10.28
SC	NiCad	2200	298636CR	10.35	9.82	9.33	299381CR	11.29	10.77	10.28
D	NiCad	5000	298783CR	24.75	22.25	19.78	299532CR	24.75	22.25	19.78
AA	NiCad	700	298214CR	4.35	3.95	3.52	298960CR	5.29	5.22	5.09
AA	NiCad	1000	298361CR	5.39	4.90	4.35	299111CR	6.55	6.34	6.07
AA	NiMH	1800	298513CR	9.49	8.55	7.59	299268CR	11.29	10.77	10.28
SC	NiCad	2200	298661CR	10.35	9.82	9.33	299410CR	11.29	10.77	10.28
D	NiCad	5000	298812CR	24.69	22.24	19.77	299567CR	24.69	22.24	19.77

## 3.6 Volts

3.6 Volts			Solder Tabs			Lead Wires				
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCd	700	298193CR	\$6.19	\$5.92	\$5.49	298943CR	\$7.15	\$6.87	\$6.57
AA	NiCd	1000	298345CR	8.05	7.31	6.50	299090CR	9.35	8.61	7.84
AA	NiMH	1800	298492CR	11.89	11.30	10.47	299276CR	12.85	12.25	11.69
SC	NiCd	2200	298644CR	12.25	11.00	9.90	299399CR	13.19	11.95	10.85
D	NiCd	5000	298791CR	35.25	31.70	28.53	299541CR	36.19	32.65	29.48
AA	NiCd	700	298222CR	6.19	5.92	5.26	298978CR	8.75	8.07	7.35
AA	NiCd	1000	298370CR	8.09	7.34	6.53	299129CR	9.35	8.57	7.81
AA	NiMH	1800	298521CR	10.35	9.82	9.33	299241CR	12.85	11.78	10.48
SC	NiCd	2200	298679CR	12.25	11.02	9.92	299428CR	13.19	11.97	10.87
D	NiCd	5000	298821CR	35.25	31.70	28.53	299575CR	36.19	32.65	29.48
AA	NiCd	700	298302CR	6.49	5.90	5.24	299057CR	6.49	5.90	5.24
AA	NiCd	1000	298450CR	8.05	7.32	6.50	299209CR	8.05	7.31	6.50
AA	NiMH	1800	298601CR	13.09	11.78	10.48	299356CR	15.99	14.48	13.13
SC	NiCd	2200	298759CR	15.09	13.53	12.18	299508CR	16.05	14.48	13.13
D	NiCd	5000	298901CR	41.49	37.34	33.61	299655CR	37.09	33.37	29.66

## 4.8 Volts

4.8 Volts			Solder Tabs			Lead Wires				
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCd	700	298206CR	\$7.79	\$7.08	\$6.37	298951CR	\$8.75	\$8.03	\$7.32
AA	NiCd	1000	298353CR	10.69	9.62	8.66	299102CR	11.65	10.57	9.61
AA	NiMH	1800	298505CR	15.09	14.33	13.35	299250CR	16.05	15.28	14.56
SC	NiCd	2200	298652CR	15.45	13.90	12.51	299401CR	16.39	14.85	13.46
D	NiCd	5000	298804CR	44.49	40.05	36.04	299559CR	45.45	41.00	36.99
AA	NiCd	700	298249CR	7.79	7.06	6.36	298994CR	8.69	8.01	7.31
AA	NiCd	1000	298396CR	10.69	9.60	8.65	299145CR	11.65	10.55	9.60
AA	NiMH	1800	298548CR	15.09	14.32	13.30	299292CR	16.05	15.28	14.56
SC	NiCd	2200	298651CR	15.45	13.64	12.51	299444CR	16.39	14.85	13.46
D	NiCd	5000	298847CR	44.35	39.89	35.90	299591CR	45.29	40.84	36.85
AA	NiCd	700	298231CR	7.85	7.12	6.40	298986CR	8.75	8.07	7.35
AA	NiCd	1000	298388CR	10.69	9.62	8.66	299137CR	11.65	10.57	9.61
AA	NiMH	1800	298530CR	11.89	11.30	10.74	299284CR	16.05	15.28	14.56
SC	NiCd	2200	298687CR	15.45	13.91	12.52	299436CR	16.39	14.86	13.47
D	NiCd	5000	298839CR	44.49	40.02	36.02	299583CR	45.45	40.97	36.97
AA	NiCd	700	298273CR	7.79	7.08	6.37	299022CR	8.75	8.03	7.32
AA	NiCd	1000	298425CR	10.69	9.62	8.66	299170CR	11.65	10.57	9.61
AA	NiMH	1800	298572CR	15.09	14.32	13.34	299321CR	16.05	15.28	14.56
SC	NiCd	2200	298724CR	15.45	13.90	12.51	299479CR	16.39	14.85	13.46
D	NiCd	5000	298871CR	44.49	40.03	36.03	299621CR	45.45	40.98	36.98
AA	NiCd	700	298311CR	8.35	7.57	6.81	299065CR	8.65	7.85	6.97
AA	NiCd	1000	298468CR	10.79	9.73	8.65	299217CR	12.19	11.08	10.06
AA	NiMH	1800	298610CR	16.95	15.23	13.71	299364CR	16.65	14.97	14.22
SC	NiCd	2200	298767CR	16.95	15.23	13.71	299516CR	17.89	16.18	14.66
D	NiCd	5000	298919CR	47.19	42.46	40.34	299663CR	48.15	43.41	39.40



## 6.0 Volts

6.0 Volts			Solder Tabs				Lead Wires			
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCd	700	298329CR	\$9.25	\$8.00	\$7.60	299073CR	\$10.29	\$8.95	\$8.55
AA	NiCd	1000	298476CR	11.25	10.13	9.11	299225CR	13.25	11.08	10.06
AA	NiMH	1800	298628CR	18.85	16.07	15.27	299372CR	19.75	17.02	16.22
SC	NiCd	2200	298775CR	18.79	15.99	14.39	299524CR	19.75	16.94	15.34
D	NiCd	5000	298927CR	52.85	44.92	42.67	299680CR	53.79	45.87	43.57

## 7.2 Volts

7.2 Volts			Solder Tabs			Lead Wires				
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCd	700	298257CR	\$11.75	\$10.58	\$9.53	299006CR	\$12.75	\$11.53	\$10.59
AA	NiCd	1000	298409CR	15.99	14.40	12.96	299153CR	16.95	15.35	13.91
AA	NiMH	1800	298556CR	20.29	18.25	16.43	299305CR	21.25	19.20	17.38
SC	NiCd	2200	298708CR	23.15	20.81	18.73	299452CR	24.09	21.76	19.68
D	NiCd	5000	298855CR	66.49	59.83	59.09	299604CR	67.45	60.78	59.09

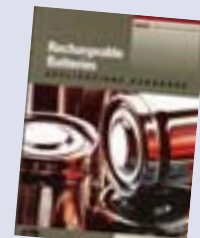
AA	NiCd	700	298281CR	11.79	10.59	9.54	299031CR	12.75	11.54	10.49
AA	NiCd	1000	298433CR	16.01	14.41	12.97	299188CR	16.95	15.36	13.92
AA	NiMH	1800	298581CR	20.29	18.25	16.43	299330CR	21.25	19.20	17.38
SC	NiCd	2200	298732CR	23.15	20.82	18.74	299487CR	24.09	21.77	19.69
D	NiCd	5000	298880CR	66.49	59.83	59.29	299639CR	67.45	60.78	59.29

## 9.6 Volts

9.6 Volts			Solder Tabs			Lead Wires				
Cell Size	Type	mAh	Jameco Part No.	Pricing			Jameco Part No.	Pricing		
				1	10	25		1	10	25
AA	NiCd	700	298265CR	\$15.69	\$14.12	\$12.70	299014CR	\$16.65	\$15.07	\$13.65
AA	NiCd	1000	298417CR	21.33	19.20	17.27	299161CR	22.29	20.15	18.23
AA	NiMH	1800	298564CR	26.35	23.70	21.34	299313CR	27.29	24.65	22.29
SC	NiCd	2200	298716CR	30.85	27.75	24.98	299461CR	31.79	28.70	25.93
D	NiCd	5000	298863CR	88.65	79.76	78.78	299612CR	89.59	80.71	78.78
AA	NiCd	700	298290CR	12.25	11.02	9.92	299049CR	12.25	11.02	9.92
AA	NiCd	1000	298441CR	15.18	13.66	12.29	299196CR	16.15	14.61	13.24
AA	NiMH	1800	298599CR	23.64	21.27	19.13	299348CR	24.59	22.22	20.09
SC	NiCd	2200	298741CR	24.61	22.04	19.84	299495CR	25.45	22.98	20.78
D	NiCd	5000	298898CR	63.35	57.01	54.16	299647CR	64.29	57.96	55.06

Rechargeable Batteries  
Application Handbook

**Butterworth-Heinemann** This handbook represents the first widely-available compendium of information needed by those design professionals responsible for using rechargeable batteries. It introduces the most common forms of rechargeable batteries, including their history, the basic chemistry that governs their operation, and common design approaches. The introduction also exposes the reader to common battery design terms and concepts. (290 pages, 1998)



Part No.	Description	Price
305171CR	Rechargeable batteries handbook	\$41.95

# Serial LCD Displays and Panel Meters

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## Serial LCD Displays

Scott Edwards Electronics, Inc.

- For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com).
- One year warranty

**Scott Edwards ILM-216L**  
• 16 x 2 characters  
• 2.8" x 1.0" display



P/N 150990CR **\$48.95**

**Matrix Orbital LK162-12**  
• 16 x 2 characters  
• 2.5" x 0.7" display



P/N 174166CR **\$52.39**

**Scott Edwards BPI-216N**  
• 16 x 2 characters  
• 2.8" x 1.0" display



P/N 133129CR **\$59.95**

**Matrix Orbital VK202-25**  
• 20 x 2 characters w/ keypad interface  
• 2.8" x 0.5" display



P/N 281359CR **\$88.99**

**Matrix Orbital LCD2041**  
• 20 x 4 characters  
• 3.0" x 1.0" display



P/N 150957CR **\$54.19**

**Matrix Orbital LK204-25**  
• 20 x 4 characters  
w/ keypad interface  
• 3.0" x 1.0" display



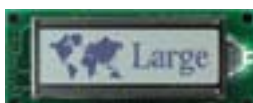
P/N 157323CR **\$72.95**

**Matrix Orbital GLK12232-25-SM**  
• 20 x 4 characters  
with graphics  
• 2.4" x 0.7" display



P/N 281391CR **\$68.99**

**Matrix Orbital GLK12232-25-WBL**  
• 20 x 4 characters  
with graphics  
• 3.3" x 1.4" display



P/N 281404CR **\$74.99**

**Matrix Orbital VFD2041**  
• 20 x 4 characters  
• 3.0" x 1.0" display



P/N 303554CR **\$105.99**

**Scott Edwards SGX-120L**  
• 20 x 4 characters  
with graphics  
• 2.6" x 1.1" display



P/N 158166CR **\$119.95**

**Matrix Orbital VK204-25**  
• 20 x 4 characters  
• 2.8" x 0.8" display



P/N 281375CR **\$114.49**

**Scott Edwards BPP-440L**  
• 40 x 4 characters  
• 6.7" x 1.7" display



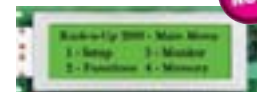
P/N 136485CR **\$169.95**

**Matrix Orbital GLC24064**  
• 40 x 8 characters with graphics  
• 5.2" x 1.5" display



P/N 174182CR **\$165.99**

**Matrix Orbital GLK24064-25**  
• 40 x 8 characters with graphics  
• 5.0" x 1.3" display



P/N 281412CR **\$192.99**

Part No.	Manufacturer	Product No.	Characters x Lines	Serial Input (bps)	Input Voltage	Backlight	Notes*	Module Size (W"xH"xD")	Display Size (W"xH")	Pricing		
										1	10	25
150990CR	Scott Edwards	ILM-216L	16 x 2	1200 - 9600	4.8V-5.5V@ 5mA	Y	1,2,5	3.2x2.0x0.5	2.8 x 1.0	\$48.95	\$44.09	\$39.65
174166CR	Matrix Orbital	LK162-12	16 x 2	1200 - 19,200	5.0V@9mA	Y	1,3,4,6	3.2x1.5x0.8	2.5 x 0.7	52.39	51.19	49.95
133129CR	Scott Edwards	BPI-216N	16 x 2	2400 or 9600	4.8V - 5.5V @ 3mA	N	1, 2,11	3.1x1.4x0.7	2.8 x 1.0	59.95	53.99	48.99
281359CR	Matrix Orbital	VK202-25	20 x 2 w/ keypad interface	1200 - 19,200	5.0V@130mA	Y	1,7,10	4.6x1.5x0.9	2.8 x 0.5	88.99	87.97	84.47
150957CR	Matrix Orbital	LCD2041	20 x 4	1200 - 19,200	5.0V@10mA	Y	1,3,4,6	3.9x2.4x0.7	3.0 x 1.0	54.19	52.69	51.19
157323CR	Matrix Orbital	LK204-25	20 x 4 w/ keypad interface	1200 - 19,200	5.0V@16mA	Y	1,3,4,6	3.7x2.4x1.1	3.0 x 1.0	72.95	71.15	68.99
281391CR	Matrix Orbital	GLK12232-25-SM	20 x 4 w/ graphics	9600 - 115,000	5.0V@250mA	Y	1,8	3.4x1.4x 0.5	2.4 x 0.7	68.99	67.99	65.49
281404CR	Matrix Orbital	GLK12232-25-WBL	20 x 4 w/ graphics	9600 - 115,000	5.0V@20mA	Y	1,8	3.9x2.4x0.4	3.3 x 1.4	74.99	73.99	71.19
303554CR	Matrix Orbital	VFD2041	20 x 4	1200 - 19,200	5.0V@20mA	Y	1,4,10	3.9x2.4x1.1	3.0 x 1.0	105.99	102.99	99.99
158166CR	Scott Edwards	SGX-120L	20 x 4 w/ graphics	2400 or 9600	9V bat. or 5.0V@45mA	Y	1,2,5	3.1x1.9x0.8	2.6 x 1.1	119.95	107.99	107.99
281375CR	Matrix Orbital	VK204-25	20 x 4	1200 - 19,200	5.0V@220mA	Y	1,4,10	3.8x2.4x1.0	2.8 x 0.8	114.49	113.50	108.73
136485CR	Scott Edwards	BPP-440L	40 x 4	1200 - 9600	5.0V@10mA	Y	1,2,11	7.5x2.2x0.9	6.7 x 1.7	169.95	152.95	152.95
174182CR	Matrix Orbital	GLC24064	40 x 8 w/ graphics	1200 - 19,200	5.0V@31mA	Y	1,3,6	7.1x2.6x0.7	5.2 x 1.5	165.99	161.69	157.49
281412CR	Matrix Orbital	GLK24064-25	40 x 8 w/ graphics	9600 - 115,000	5.0V@20mA	Y	1,9	7.1x2.6x1.1	5.0 x 1.3	192.99	192.00	183.30

\*1. For power supply, recommend P/N 164101CR, pg 151.

2. Includes instruction codes for character generation, cursor control, printing, etc. (Examples for Stamps in PBASIC included.)

3. Manual and software included

4. Connect 16 modules using the same two wire interface

5. EEPROM stores text font, settings, and text screen

6. Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature.

7. Connect 127 modules on the same 2-wire interface

8. 122 x 32 pixel graphics display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

9. 240 x 64 pixel graphic display, text display using built-in or user supplied fonts, adjustable contrast, backlighting, and keypad interface

10. Built-in font provision for up to 8-user defined characters, software controlled brightness, use up to a 25-key keypad with one 10-key buffer, 6 general purpose outputs, horizontal or vertical bar graphs

11. LCD Serial Backpack\* accepts RS232, CMOS or TTL signal.



## Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 44780 Chipset

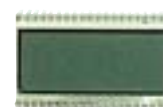
- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking cursor blanking, up-down-left-right cursor controls
- Compatible with P/N 171715CR, pg 165



Part No.	Product No.	Size (L x W)	1	10	25
157981CR	1616B-05A-100	1.5" x 1.0"	\$19.70	\$17.91	\$16.28

## VZ 0.5" High 4-Digit Field Effect LCD Display

- Compatible with socket P/N 78641CR (2), pg 90
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Digital multimeters, thermometers, pressure gauges, timers, frequency counters, and clocks (12 or 24 hour format)



8.8.8.8

Part No.	Product No.	Size (W x H x D)	1	10	25
17110CR	402-DP-RC-S	2.0" x 1.2" x 0.1"	\$14.95	\$13.49	\$12.15



## Parallel LCD Displays

• For detailed specification sheets, please visit [www.Jameco.com](http://www.Jameco.com).

• 90-day Jameco warranty



### PicVue PVC160204A

- 16 x 2 characters
- 2.6" x 0.7" display



P/N 277384CR **\$11.85**

### Ampire AC-162A

- 16 x 2 characters
- 2.5" x 0.7" display



P/N 171715CR **\$19.95**

### PicVue PVC160205

- 16 x 2 characters
- 3.9" x 0.9" display



P/N 277392CR **\$22.75**

### Optrex DM16433

- 16 x 4 characters
- 2.4" x 1.0" display



P/N 210761CR **\$22.95**



### Samsung 9936

- 20 x 1 characters
- 6.5" x 1.3" display



P/N 206615CR **\$19.99**

### Ampire AC-202A

- 20 x 2 characters
- 3.3" x 0.7" display



P/N 171723CR **\$24.95**

### PicVue PVC200401

- 20 x 4 characters
- 3.0" x 1.0" display



P/N 277376CR **\$23.29**

### Ocular OM4021-WGS-01

- 40 x 2 characters
- 6.0" x 0.6" display

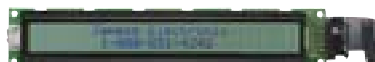


P/N 277325CR **\$24.95**

Quantity  
**SAVE**

### Optrex 20-20191-2

- 40 x 2 characters
- 5.8" x 0.5" display



Quantity  
**SAVE**

P/N 215159CR **\$29.99**

### Emerging Display EW40420GLY

- 40 x 4 characters
- 5.9" x 1.2" display



P/N 277253CR **\$42.39**

### PicVue PG121202A

- 128 x 128 pixels
- 2.7" x 2.7" display



P/N 277333CR **\$45.29**

### PicVue PVG240602A

- 240 x 64 pixels
- 5.2" x 1.5" display



P/N 277350CR **\$61.95**

Part No.	Manufacturer	Product No.	Characters x Lines	Character Font	Input Data	Input Voltage	Backlight	Notes*	Module Size (W"xH"xD")	Display Size (W"xH")	Pricing		
											1	10	25
277384CR	PicVue	PVC160204A	16 x 2	5 x 7	8-bit	5VDC@1.6mA	Y	—	3.3x1.4x0.5	2.6 x 0.7	\$11.85	\$10.25	\$8.55
171715CR	Ampire	AC-162A	16 x 2	5 x 8	8-bit	5.5V@1.5mA	Y	3, 5	3.4x1.2x0.5	2.5 x 0.7	19.95	17.95	15.95
277392CR	PicVue	PVC160205	16 x 2	5 x 8	4-bit or 8-bit	5.2V@1.2mA	Y	—	4.8x1.7x0.5	3.9 x 0.9	22.75	19.89	16.59
210761CR	Optrex	DM16433	16 x 4	5 x 8	4-bit or 8-bit	6.5V@2.2mA	N	1, 5	3.4x2.4x0.3	2.4 x 1.0	22.95	19.95	18.69
206615CR	Samsung	9936	20 x 1	5 x 7	4-bit or 8-bit	5.5V@3.0mA	N	2	7.2x1.6x0.4	6.5 x 1.3	19.99	16.99	12.75
171723CR	Ampire	AC-202A	20 x 2	5 x 8	8-bit	5.0@1.7mA	Y	3, 5	4.6x1.5x0.4	3.3 x 0.7	24.95	22.49	20.25
277376CR	PicVue	PVC200401	20 x 4	5 x 8	8-bit	5.0V@1.6mA	N	—	3.9x2.4x0.4	3.0 x 1.0	23.29	20.19	16.85
277325CR	Ocular	OM4021-WGS-01	40 x 2	5 x 8	8-bit	5.0V@2.5mA	Y	5	7.2x1.3x0.6	6.0 x 0.6	24.95	21.25	15.95
215159CR	Optrex	20-20191-2	40 x 2	5 x 8	8-bit	5.5V@5mA	Y	4	7.2x1.4x0.4	5.8 x 0.5	29.99	25.49	18.95
277253CR	Emerging Display	EW40420GLY	40 x 4	5 x 7	8-bit	4.0V@10mA	Y	—	7.5x2.1x0.6	5.9 x 1.2	42.39	38.79	34.95
277333CR	PicVue	PG121202A	128 x 128 pixels	128 x 128	8-bit	5.0V@6.0mA	N	6	3.5x3.5x0.4	2.7 x 2.7	45.29	41.25	37.15
277350CR	PicVue	PVG240602A	240 x 64 pixels	240 x 64	8-bit	5.0V@6.0mA	N	6	7.1x2.6x0.4	5.2 x 1.5	61.95	56.75	46.85

\*1. Control LSI HD44780 or equivalent and comum driver MSM5259 or equivalent

2. Built-in controller HD44780

3. Controller KS0066U or equivalent

4. Column driver: KS0063B

5. For power supply: recommend P/N 164101CR, pg 151)

6. Dot Graphic LCD display

## 0.6" High 3½- & 4½-Digit LCD Digital Panel Meters

- Input Ranges: 200mV, 20V, 200V, 500V
- Automatic polarity indication
- Accuracy: ±0.5%
- Input impedance: >100MΩ
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095CR, pg 159)
- Size: 2.7"W x 1.7"H

146835CR: Backlit display Includes: Bezel

Part No.	Product No.	Digits	1	10	25
108388CR	PM-428	3½	\$12.95	\$11.95	\$10.95
175951CR	PM-128	3½	12.95	11.95	10.95
146835CR	PM-188BL	3½	19.95	17.99	16.19
123140CR	PM-328	4½	27.95	24.95	22.49



108388CR



175951CR



146835CR



123140CR

**Jameco Special Values!**

Sale items highlighted in yellow. Great quantity discounts highlighted in green.

Motherboards, CPUs and Heat Sinks

Intel® Processor-Based Motherboards

These Intel® motherboards provide the ultimate in speed, compatibility and confidence, making them ideal for desktop systems and embedded solutions alike. Pentium® 4 and Celeron® based configurations.



♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

Jameco Part No.	Mfr.	Model No.	Internal Name	Board Style	Processor Support	Support FSB (MHz)	Chipset	On-Board Graphics	Memory Type (SDRAM)	Max. Mem/ Slots	Expansion Slots		On-Board Audio	USB Ports	HDD Support	On-Board LAN	Board Size	Wt. (lbs.)	Warranty	Jameco Part No.	Pricing	
																					1	10
285157CR	Intel	SE7505VB2 ♣	Vero Beach	Extended ATX	Dual Xeon™	533/400	iE7505	ATI RageXL with 8MB mem.	DDR 200/266	8GB / 4	2 x 64bit/100MHz PCI-X 1 x 64bit/66MHz PCI-X 2 x 32bit/33MHz AGP 8x/4x	↔	None	USB 2.0 6 Back / 2 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/1000 MT Server Network PRO 100 Server Connections	12" x 13"	3.8	3 years limited	285157CR	<del>\$573.25</del> \$474.15	\$469.79
285131CR	Intel	S875WP1 ♣	Winter Park	ATX	Pentium® 4	533	i875P	ATI RageXL with 8MB mem.	DDR 400/333/266	4GB / 4	3 x 32bit/33MHz AGP 8x/4x		None	USB 2.0 4 Back / 2 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/1000 XT Server Network PRO 100 Server Connections	12" x 9.6"	2.7	3 years limited	285131CR	<del>\$279.95</del> 256.35	245.99
285106CR	Intel	BOXD875PBZLK ♣	Bonanza	ATX	Pentium® 4	800/533	i875P	None	DDR 400/333	4GB / 4	5 PCI 32bit/33MHz AGP 8x/4x		None	USB 2.0 6 Back / 2 Front	2-ports SATA150 (1.5Gb/s) RAID 0: 2-ports ATA 100	Intel® PRO/1000CT (Gigabit)	11.52" x 9.6"	2.9	3 years limited	285106CR	<del>\$225.50</del> 205.89	185.29
285093CR	Intel	BOXD865PERLL ♣	Rock Lake	ATX	Pentium® 4/ Celeron®	800/533/400	i865P	None	DDR 400/333/266	4GB / 4	5 PCI 32bit/33MHz AGP 8x/4x	↔	Full 6-channel surround sound + optical output with jack sensing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) RAID 0: 2-ports ATA 100	PRO/100 (10/100)	12" x 9.6"	3.1	3 years limited	285093CR	<del>\$164.15</del> 142.39	128.15
285077CR	Intel	BOXD865GBFL ♣	Bayfield	ATX	Pentium® 4/ Celeron®	800/533/400	i865G	Intel Extreme Graphic 2	DDR 400/333/266	4GB / 4	6 PCI 32bit/33MHz AGP 8x/4x		Flexible 6-channel audio with jack sharing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/100 (10/100)	11.6" x 9.6"	2.8	3 years limited	285077CR	<del>\$144.99</del> 131.05	123.49
285085CR	Intel	BOXD865GLCL ♣	La Crosse	MicroATX	Pentium® 4/ Celeron®	800/533	i865G	Intel Extreme Graphic 2	DDR 400/333	4GB / 4	3 PCI 32bit/33MHz AGP 8x/4x		Full 6-channel with jack sensing	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	PRO/100 (10/100)	9.6" x 9.6"	2.5	3 years limited	285085CR	142.09	134.95
285122CR	Intel	BOXD865GRHLK ♣	Rock Harbor	MicroATX	Pentium® 4/ Celeron®	800/533/400	i865G	Intel Extreme Graphic 2	DDR 400/333/266	4GB / 4	3 PCI 32bit/33MHz AGP 8x/4x		Integrated AC97 audio	USB 2.0 4 Back / 4 Front	2-ports SATA150 (1.5Gb/s) 2-ports ATA 100	Intel® PRO/1000CT (Gigabit)	9.6" x 9.6"	2.5	3 years limited	285122CR	<del>\$177.95</del> 163.09	157.35
285114CR	Intel	BOXD845GVSRL ♣	Seabreeze	MicroATX	Pentium® 4/ Celeron®	533/400	i845GV	Intel Extreme Graphic	DDR 333/266	2 GB / 2	3 PCI 32bit/33MHz	↔	Integrated AC97 audio	USB 2.0 4 Back / 4 Front	2-ATA 100 / 66	Intel® PRO/100 (10 / 100)	9.6" x 8.2"	2.1	3 years limited	285114CR	79.95	74.95



Intel® Desktop Processors

Part No.	Product Name	Mfr. Part No.	Speed (GHz)	FSB (MHz)	Cache	Package	1	10
283258CR	Pentium® 4**	BX80532PG3200F ♣	3.2	800	2MB	mPGA-478	<del>\$1,329.95</del> \$1,264.25	
283274CR	Pentium® 4*	BX80546PG3200E ♣	3.2	800	1MB	mPGA-478	<del>\$409.85</del> 311.59	304.99
283311CR	Pentium® 4*	BX80532PG3200D ♣	3.2	800	512kB	mPGA-478	<del>\$409.95</del> 367.09	329.39
283338CR	Pentium® 4*	BX80532PE3066D ♣	3.06	533	512kB	mPGA-478	<del>\$324.99</del> 293.75	264.35
283320CR	Pentium® 4*	BX80532PG3000D ♣	3.0	800	512kB	mPGA-478	<del>\$325.09</del> 293.55	264.19
283291CR	Pentium® 4*	BX80532PG2800E ♣	2.8	800	1MB	mPGA-478	<del>\$295.35</del> 257.95	250.25
283354CR	Pentium® 4*	BX80546PE2800D ♣	2.8	533	512kB	mPGA-478	247.09	234.75
283418CR	Intel Celeron®	BX80532RC2600B ♣	2.6	400	128kB	mPGA-478	126.35	119.95
283397CR	Pentium® 4*	BX80532PG2400D ♣	2.4	800	512kB	mPGA-478	205.95	199.29
283434CR	Intel Celeron®	BX80532RC2400B ♣	2.4	400	128kB	mPGA-478	99.49	96.45
283451CR	Intel Celeron®	BX80532RC2000B ♣	2.0	400	128kB	mPGA-478	91.09	88.85

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD. † Includes active heat sink \* Hyper-threading technology \*\* Extreme edition processor w/ hyper-threading technology

Legacy Intel® Processors

Part No.	Description	Speed (MHz)	Package	1	10
183118CR	Pentium® III processor	600	Slot 1	\$117.59	\$111.75
183100CR	Pentium® II processor	400	Slot 1	99.95	74.95
151651CR	Pentium® II processor	300	Slot 1	89.95	85.45
190060CR	Pentium® II w/ heat sink	233	Slot 1	89.95	79.95
150501CR	Pentium MMX® processor	233	376/PGA	69.95	62.95
140054CR	Pentium MMX® processor	200	376/PGA	49.95	37.45
130841CR	Pentium® processor	166	296/PGA	49.95	37.45
130833CR	Pentium® processor	133	296/PGA	39.95	35.95
118421CR	Intel 486DX2 processor	66	168/PGA	19.95	14.96

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CPU Heat Sinks and Fans

206244CR

181278CR

216506CR

190545CR

185607CR

118092CR

129226CR

191636CR

174115CR

- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans
- Easy installation – just snap it in

Part No.	Description	Size (H" x W" x D")	Approvals	1	10
206244CR	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.30	CE	\$12.95	\$11.65
181278CR	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	8.49	7.65
216506CR	Heat sink w/ fan for socket 7 (AT/ATX)	1.95 x 2.05 x 1.37	CE	8.49	7.65
190545CR	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	—	13.55	12.19
185607CR	Heat sink w/ fan for socket 7 & 370	0.98 x 2.37 x 2.40	CE	14.95	13.49
118092CR	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 0.86	UL/CE/TUV	4.95	4.49
129226CR	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	—	2.95	2.65
191636CR	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	5.95	4.45
174115CR	Heat sink w/ fan for 486 CPU w/ snap†	1.93 x 1.96 x 0.93	UL/CU	3.95	2.95

† 14" lead wires

For Standoffs and Mounting Hardware  
See page 122.



New Lower Prices  
Marked in Orange



Hard Disk Drives



3.5" LP UATA/100 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Warranty	1	10
284891CR	ST3200822A ♣	200GB	UATA/100	7200	8.5	8	3 yrs	<del>\$108.49</del> \$128.95	\$126.09
284867CR	ST3160021A ♣	160GB	UATA/100	7200	8.5	2	3 yrs	<del>\$148.85</del> 117.89	115.95
284883CR	ST3160023A ♣	160GB	UATA/100	7200	8.5	8	3 yrs	<del>\$159.95</del> 132.59	126.95
284824CR	ST3120022A ♣	120GB	UATA/100	7200	8.5	2	3 yrs	<del>\$124.15</del> 115.79	104.95
284859CR	ST3120026A ♣	120GB	UATA/100	7200	8.5	8	3 yrs	<del>\$136.89</del> 125.25	112.39
284808CR	ST380011A ♣	80GB	UATA/100	7200	8.5	2	3 yrs	<del>\$103.89</del> 89.95	81.69
284787CR	ST340014A ♣	40GB	UATA/100	7200	8.5	2	3 yrs	<del>\$82.95</del> 73.89	72.15
284761CR	ST340015A ♣	40GB	UATA/100	5400	12.5	2	3 yrs	<del>\$78.89</del> 72.65	69.69
284744CR	ST320014A ♣	20GB	UATA/100	5400	12.7	2	3 yrs	69.95	67.29

3.5" LP SATA/150 Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Warranty	1	10
284939CR	ST3160023AS ♣	160GB	SATA/150	7200	8.5	8	3 yrs	<del>\$174.99</del> \$147.05	\$139.67
284921CR	ST3120026AS ♣	120GB	SATA/150	7200	8.5	8	3 yrs	<del>\$147.15</del> 119.99	117.89
284904CR	ST380013AS ♣	80GB	SATA/150	7200	8.5	8	3 yrs	<del>\$111.99</del> 103.89	93.49

2.5" UATA/100 Mobile Disk Drives

Part No.	Model No.	Capacity	Interface	RPM	Seek (ms)	Cache (MB)	Warranty	1	10
284955CR	ST94011A ♣	40GB	UATA/100	5400	12	2	3 yrs	<del>\$175.19</del> \$124.95	\$119.95
284963CR	ST94811A ♣	40GB	UATA/100	5400	12	2	3 yrs	<del>\$180.85</del> 135.15	121.65
284947CR	ST92011A ♣	20GB	UATA/100	5400	12	2	3 yrs	<del>\$112.40</del> 107.75	96.99

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

Legacy Mixed Manufacturer 3.5" Hard Disk Drives\*

Part No.	Capacity	Description	Warranty	1	10
283231CR	20.0GB	Ultra ATA/133	3 mos.	\$74.95	\$71.29
200678CR	15.0GB	IDE	3 mos.	<del>\$69.95</del> 64.95	58.45
200660CR	13.0GB	IDE (ATA-4)	3 mos.	<del>\$64.95</del> 59.95	53.95
200651CR	10.2GB	IDE	3 mos.	57.95	52.95
146333CR	2.5GB	EIDE/Fast ATA-2	1 year	49.95	44.95
124978CR	1.27GB	IDE	1 year	35.95	32.35
118949CR	850MB	IDE	1 year	59.95	53.95
115764CR	425MB	IDE	3 mos.	59.95	53.95
189914CR	9.1GB	Ultra-wide SCSI SCA	3 mos.	<del>\$49.95</del> 25.49	19.95

\* Manufacturers may vary and capacity may exceed specification

DIMM and SIMM Memory

Part No.	Mfr. Cross Ref. No.	Capacity	Description	Config.	Pins	1	10
148419CR	16MBX64SDRAM	128MB	10ns Syn. DRAM DIMM	16M x 64	168	\$65.95	\$59.95
148401CR	8MBX64SDRAM	64MB	10ns Syn. DRAM DIMM	8M x 64	168	28.50	26.95
148451CR	JEED07264	64MB	60ns SIMM EDO	16M x 32	72	29.95	28.45
148398CR	4MBX64SDRAM	32MB	10ns Syn. DRAM DIMM	4M x 64	168	18.39	16.59
148460CR	8MBX36-60	32MB	60ns SIMM	8M x 36	72	39.95	36.99
148443CR	JEED07232	32MB	60ns SIMM EDO	8M x 32	72	43.95	39.59
75184CR	P364000-XX-6	16MB	60ns SIMM	4M x 36	72	21.95	20.15
130711CR	JEED07216	16MB	60ns SIMM EDO	4M x 32	72	12.75	11.45
75168CR	P364000-XX-7	16MB	70ns SIMM	4M x 36	72	24.95	22.55
285667CR	HB56U232	8MB	70ns SIMM	2M x 36	72	8.95	6.95
75096CR	P362000-XX-6	8MB	60ns SIMM	2M x 36	72	21.55	19.39
130729CR	JEED07208	8MB	60ns SIMM EDO	2M x 32	72	9.95	7.45
75133CR	P361000-XX-6	4MB	60ns SIMM	1M x 36	72	12.95	11.65
41751CR	421000A9B-70	1MB	70ns SIMM	1M x 9	30	3.95	3.45

Kingston Memory

284998CR	KVR400X64C25/512	512MB	DDR400 ♣	64M x 64	184	<del>\$166.35</del> \$135.69	\$125.49
285026CR	KVR266X64C25/512	512MB	DDR266 ♣	64M x 64	184	<del>\$154.99</del> 114.15	102.75
285018CR	KVR266X64C25/256	256MB	DDR266 ♣	32M x 64	184	85.89	81.59
285042CR	KVR133X64C3/256	256MB	PC133 ♣	32M x 64	168	<del>\$90.65</del> 68.29	64.89
285034CR	KVR133X64C3/128	128MB	PC133 ♣	16M x 64	168	<del>\$49.45</del> 37.95	32.45

♣ These products ship from a separate warehouse and may not ship same day. Each warehouse will accrue separate shipping charges. Sorry, we're unable to ship COD.

ATX Vertical Full Tower Case

- Slide-off side panel access
- LED indicators for power and HDD activity
- Front panel reset switch and power switch
- Internal 8Ω speaker
- 5 exposed 5.25" bays, 3 exposed 3.5" bays, 2 internal 3.5" bays
- Size: 7.5"W x 16.8"D x 24.5"H • Weight: 25 lbs.

Part No.	Description	1	10
292066CR	ATX full tower	\$55.19	\$49.69



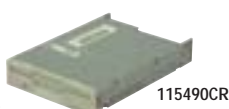
See page 49 for  
Cold Cathode Lamp  
Kits and Bulbs.





## 1.44MB 3.5" Internal Floppy Disk Drives

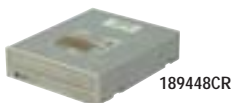
- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)
- Weight: 1.4 lbs.



Part No.	Cross Ref. No.	Mfr.	Color	1	10
115490CR	FD235	TEAC	Beige	\$21.95	\$19.95
189165CR	—	Varies	Beige	10.95	9.95
249367CR	MPF920-Z	Sony	Beige	16.95	15.99
200686CR	—	Varies	No Bezel	3.75	3.39

## Internal IDE CD-ROM Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies



Includes: Audio cable

Part No.	Speed	Buffer	kB/sec.	1	10
149307CR	24x	256kB	3600	\$27.95	\$24.95
189051CR	32x	128kB	4800	29.95	24.95
189069CR	40x	128kB	6000	32.95	27.95
189077CR	48x	128kB	7200	35.95	30.95
189448CR	56x	128kB	8400	39.95	29.95

## CD-ROM Audio Cables



Part No.	Connection from Sound Blaster to	Length	1	10	50
127546CR	Sony/MPC2	25"	\$2.95	\$2.65	\$2.29
168612CR	Universal	18"	4.95	4.45	3.99

## CD Laser Lens Cleaner

- 6-language voice guide instructions
- Single brush wet-dry cleaner
- Removes accumulated oils, dust and debris from CD optical lens



Part No.	Description	1	10	25
228531CR	CD laser lens cleaner ..	\$9.99	\$8.99	\$7.39

## CD Accessories



Part No.	Description	1	5	10
249447CR	48x/700MB/80 min./100 pk.	\$28.95	\$27.95	\$27.95
172179CR	Single jewel case	.49	.41	.31
208514CR	Paper envelope 25 pk.	2.49	2.25	1.99
208493CR	Slim asst. color 10 pk.	3.95	3.75	3.49

## Business Card CD-R Kit

Differentiate yourself or your business from others. This kit includes 12 50MB capacity CD-R and sleeves, 16 labels and label design software. A great way to promote your business in trade shows and exhibits. Easy to carry and cost-effective.



Part No.	Description	Price
249308CR	Business Card CD-R kit	\$5.59

## Back Panel PC Cooling Fan

- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 140mA
- Airflow: 43 CFM • Noise ratio: 26dBA
- 10.5" wire with 4-pin Molex power connector • Power: 1.7W
- Size: 4.3"L x 3.5"H x 1.1"Thick
- One-year warranty

**SALE**



Part No.	Description	1	10	50
152240CR	PC cooler fan	18.95	17.09	15.35

## Thermoelectric Cooler Chips

- Cools down to -30°C (dependent on external temp.)
- Heat or cool by changing direction of current
- 20 AWG wire leads, 4" long
- T max. = 60°C

- 172030CR: 8.4VDC max.
- Couples: 71\* • Watts: 19.7
- Current: 4A max.
- Size: 1.2"L x 1.2"W x 0.2"T
- 172048CR: 15.4VDC max.
- Couples: 127\* • Watts: 35.6
- Current: 4A max.
- Size: 1.6"L x 1.6"W x 0.2"T
- 172056CR: 15.4VDC max.
- Couples: 127\* • Watts: 79.1
- Current: 8A max.
- Size: 2.0"L x 2.0"W x 0.2"T



Part No.	Mfr. Cross Ref. No.	1	10
172030CR	TEC30	\$19.95	\$17.95
172048CR	TEC40	25.95	22.95
172056CR	TEC50	33.75	29.35

\* Couples: # of P&N type semiconductor pairs connected electrically in series

## Front Panel Access Ports

Enjoy easy up front access to all your most used ports, including USB, IEEE 1394, audio, and serial ports, without moving the PC.

208004CR: 2 USB; 1 IEEE 1394; Line-In; Line-Out; RS232 (9-pin male)

213532CR: 4 USB; Line-In; Line-Out



Tower not included

Part No.	Description	1	10
208004CR	Front panel port	\$34.95	\$32.45
213532CR	Front panel port	18.95	16.95

## PCMCIA Card Drive For Desktop PC

Now you can have a PCMCIA drive on your desktop PC. Supports SRAM cards, FLASH cards, LAN cards and FAX/MODEM cards.

- Jumper selectable for 4 drives
- Supports DOS 5.0 or later, Windows® 3.1 or later
- Supports Type I/II/III PCMCIA cards



Tower not included

Part No.	Description	1	10
210999CR	PCMCIA drive	\$59.95	\$53.95

## Mounting Kits

**SALE**

**Quantity SAVE**



Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
180857CR	HDB35	3.5" hard drive mount kit (short)	0.2	\$3.89	\$3.49	\$3.15
117217CR	HDMK	3.5" kit (w/ black & gray faceplates)	0.6	7.95	6.79	5.09
32088CR	SMK	3.5" to 5.25" mounting kit (beige faceplate)	0.5	5.89	5.29	4.79

## Removable IDE HDD Enclosure For 3.5" Drive Bay

- For quick drive swapping
- Power LEDs
- Keylock for security

196040CR:

- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.

196031CR:

- Size: 4.1"W x 7.5"D x 1.6"H • Weight: 0.8 lbs.

Includes: Inner cable with IDE connector



Part No.	Description	1	10	25
196040CR	IDE encl. w/ insert...	\$27.95	\$20.95	\$14.69
196031CR	Insert for 196040CR...	19.95	16.99	12.99

## Removable IDE HDD Enclosure For 5.25" Drive Bay

Easily remove a hard drive from your PC or workstation, safeguard your data and an ideal way to back-up data. Because rack kit is hot removable, you can remove your hard drive without shutting down your computer operations. Aluminum case transfers heat away from the drive for longer & more reliable drive life.

- 5.25" rack kit for 3.5" hard drives • Drive activity LED
- Built-in fan • Aluminum rack • Keylock for security

Part No.	Description	1	10	25
211035CR	Enclosure kit (IDE)	\$29.95	\$26.95	\$23.95

## Removable IDE HDD Enclosure For 5.25" Drive Bay

- Supports DMA 66 hard drive
- Retaining lock mechanism
- 12VDC @ 50mA fan
- CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H
- Weight: 1.3 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
170608CR	Enclosure kit (IDE)	\$25.45	\$22.89	\$19.95

## External IDE HDD Enclosure with Parallel Interface

An external HDD enclosure for IDE hard drives with a parallel port interface to be connected to a PC or laptop. No drivers needed. Windows® 98 and above will automatically detect hard disk drive.

- Parallel port interface
- Built-in fan and 110V power supply

Includes: Parallel cable and power cord

Part No.	Description	1	5
249316CR	HDD external enclosure	\$19.95	\$15.95



## 19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" thick • Black front panel
- All enclosures have handles except P/N 132812CR

Includes: Mounting screws



Part No.	Dimensions (In.)			Weight (lbs.)	Pricing	
	H1	H2	D		1	10
132812CR	1.73	1.25	9.75	6.2	\$39.95	\$35.99
132821CR	3.46	3.0	9.75	7.9	47.95	43.49
132839CR	3.46	2.88	11.75	9.1	53.95	48.59
132847CR	5.22	4.75	11.75	10.6	63.95	55.99
132855CR	5.22	4.75	13.50	11.8	73.95	66.95
132863CR	8.56	8.0	13.50	15.4	94.95	84.95

## 19" Equipment Wall Mount Brackets

Save space in your office or computer room by installing your 19" equipment to the walls with these wall mount brackets.

- Black powder coat finish
- Size: P/N 229454CR – 7.0"H x 12.0"D  
P/N 229462CR – 12.25"H x 12.0"D



Part No.	Description	1	10
229454CR	Bracket for 2U	\$49.95	\$44.95
229462CR	Bracket for 3U	84.95	76.45

## 19" Industrial Chassis with PC-AT 300-Watt Power Supply

EIA RS-310C Compliant

- Back panel with 12 open slots
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Use with 14-slot PC-BUS compatible backplane P/N 135061CR, above right
- Removable disk drive bay w/ shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh
- Waterproof front panel
- Color: gray • Weight: 37 lbs.
- Size: 16.8"L x 16.9"W x 7.0"H

Includes: Mounting hardware



Part No.	Description	1	10
146851CR	19" chassis w/ 300W PS	\$211.45	\$190.28

## 19" Rack Mount Enclosure for 14" Monitor

- Clear glass front panel
- Hinged door for accessing monitor controls
- Color: gray
- Size: 19.0"W x 15.1"D x 14.0"H
- Weight: 30 lbs.



Part No.	Description	1	10
136021CR	Enclosure for 14" monitor	\$157.55	\$143.23

## 16-Slot ISA-PCI-PICMG Passive AT Backplane

- Ten 16-bit ISA slots, four 32-bit PCI slots and two 48-bit PICMG slots
- LED indicators for  $\pm 5V/\pm 12V$
- Compatible with P/N 146851CR (below left)
- Size: 12.5"L x 10.0"W • Weight: 1.9 lbs.



Part No.	Description	1	10
135061CR	Passive AT backplane	\$54.95	\$50.16

## Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H • Color: beige



Part No.	Description	1	10
149500CR	Cabinet mount plate	\$39.95	\$35.95

## 19" Rack Mount Keyboard Tray

This sliding keyboard tray only occupies a 1U or 1.75" space on a rack mount. A hinged articulating arm provides cable management and accommodates most standard size keyboards.

- Black powder coat finish
- Size: 20.0"W x 9.0"D x 3.5"H



Part No.	Description	1	10
229471CR	19" rack mount KB tray	\$99.95	\$89.95

## 19" Rack Mount Drawer with Keyboard and Trackball

- Occupies a single unit (1U) rack space
- PS/2 connector for keyboard and trackball
- Color: gray
- Size: 19"W x 13"D x 2.8"H
- Weight: 18 lbs.

Includes: Wrist pads, module, PS/2 to 5-pin DIN and PS/2 to 9-pin adapters, and software



Part No.	Description	1	10
220644CR	Rack mount KB drawer	\$249.99	\$234.99

## ATX Vertical Full Tower Case

- Slide-off side panel access
- LED indicators for power and HDD activity
- Front panel reset switch and power switch
- Internal 8Ω speaker
- 5 exposed 5.25" bays, 3 exposed 3.5" bays, 2 internal 3.5" bays
- Size: 7.5"W x 16.8"D x 24.5"H
- Weight: 25 lbs.



Part No.	Description	1	10
292066CR	ATX full tower	\$55.19	\$49.69

## Relay Rack & Rack Panels

Rack:

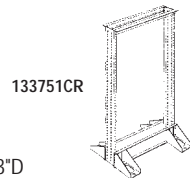
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base
- 1/8" aluminum side rails
- Size: 84"H (133751CR); 47.25 (231079CR)
- Size (at base): 19.8"W x 15.3"D

19" Wide Panel:

- 10-gauge black aluminum

Rack screw:

- 10/32 screw; 5/8" phillips head (50 ea.)



Part No.	Description	Height	1	10
133751CR	Relay rack	84"	\$159.95	\$144.95
231079CR	Relay rack	47.25"	119.95	105.95
133276CR	Rack panel (1U)	1.75"	9.45	8.49
229489CR	Rack panel (2U)	3.50"	10.35	9.39
229497CR	Rack panel (3U)	5.25"	12.89	11.69
229500CR	Rack panel (4U)	7.00"	14.15	12.79
229446CR	Rack screw (50 ea.)		8.25	7.45

## Rack Mount Card Cage

- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D

Quantity  
SAVE



Part No.	Description	1	10	25
172099CR	Rackmount card cage	\$6.95	\$5.91	\$4.43

## 19" Rack Mount CAT 6 Patch Panels

For the Maximum Network Performance

Our CAT 6

patch panels

feature 110D

punch blocks

that are compatible with KRONE or 110-impact tool. The RJ45 jacks are top entry type; PBT UL94 V0 rated. UL/CUL listed and CAT 6 certified. Can be used with T568 A/B installations. Color-coded to T568 specifications.

SALE



Part No.	Description	1	10
229518CR	24-port patch panel	\$107.69	\$107.69
229526CR	48-port patch panel	179.39	169.99

## 19" Rack Mount CAT 5 Patch Panels

Our CAT 5

patch panels

feature 110D

punch blocks that

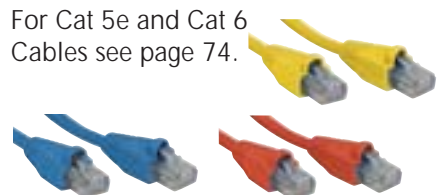
are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.

SALE



Part No.	Description	1	10
208768CR	12-port patch panel	\$28.99	\$27.55
208784CR	24-port patch panel	42.75	39.95

For Cat 5e and Cat 6  
Cables see page 74.



## 105-Key Multimedia Keyboard with 21 Hot Keys



- PC AT and PS/2 compatible
- Enhanced 95/98/2000 keyboard layout
- 12-function keys with separate cursor and numeric keypad
- Soft-touch key
- LED indicator for Num, Caps, and Scroll locks
- Multifunction keys for email, multimedia functions, and sound
- Windows® start menu key
- Size: 17.5"L x 6.3"W x 1.5"H • Weight: 1.8lbs.

Part No.	Description	1	10	25
268402CR	105-key keyboard ....	\$12.19	\$10.95	\$9.89



## 104-Key Keyboard

Quantity  
SAVE



- For PS/2 systems • Windows® 95 compatible
- Unmarked window keys • Size: 18.2"L x 7.0"W x 1.5"H
- LED indicators for Num, Caps and Scroll Locks
- 12 Function keys w/ separate arrow & numeric keys
- Tactile feedback • Tilt mechanism • Wt.: 2.7 lbs.

Part No.	Description	1	10	25
173649CR	104-key keyboard ....	\$12.95	\$9.75	\$6.85

## Space Saver Keyboards

Full featured AT & PS/2 mini keyboards save valuable desktop space.



Standard Keyboard

Mini Keyboards  
save up to 30%  
desk space!

- Adjustable tilt mechanism
- Tactile key stroke
- LED indicators for Num, Caps, and Scroll lock

### 199718CR: 83-key keyboard

- For PS/2 systems
- Auto repeat
- N-key rollover
- Size: 12.8"L x 6.2"W x 1.0"H
- Weight: 1.9 lbs.



199718CR

### 114868CR: 84-key keyboard

- For AT systems, designed for Windows® 95
- Size: 12.8"L x 6.6"W x 1.0"H
- Weight: 2.4 lbs.



211756CR

### 211756CR: 88/89-key keyboard w/ touch pad

- For AT systems, designed for Windows®
- Built-in touch pad and embedded keyboard
- Soft touch membrane contact
- Size: 11.4"L x 8.5"W x 1.2"H • Weight: 2.3 lbs.



Part No.	Description	1	10	25
199718CR	83-key PS/2 .....	\$45.95	\$37.95	\$36.09
114868CR	84-key AT .....	49.95	44.95	38.95
211756CR	88/89-key AT .....	59.95	53.95	48.95

COMPAQ

## 101-Key Keyboard



SALE

- For PS/2 systems • Tactile touch
- 12 function keys with separate cursor & numeric keys
- LED indicators for Num, Caps, and Scroll lock
- Recommend using adapter P/N 85500CR, pg 71 or P/N 159089CR, pg 94
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

Part No.	Description	1	10	25
191530CR	101-key keyboard ..	\$18.95	\$16.95	\$14.95

## Gateway 104-Key USB Keyboard



- For PC's with USB ports • Soft-touch key
- 12-function keys with separate cursor and numeric keypad
- Windows® compatible
- Extra USB ports on side and rear
- LED indicator for Num, Caps, Scroll Locks
- Multifunction keys for email, multimedia functions and sound
- Windows® start menu key
- Size: 18.6"L x 7.8"W x 1.4"H • Weight: 3.8 lbs.

Part No.	Description	1	10
263521CR	USB keyboard .....	\$16.25	\$15.45

ione

## 104-Key Keyboard with Jumbo Trackball



- PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel
- One-year warranty
- Windows® 95 compatible
- Size: 19.0"L x 6.8"W x 1.4"H • Weight: 3.7 lbs.

Includes: Software and USB adapter

Part No.	Description	1	10
128718CR	Scorpius 35PU/NET .....	\$99.95	\$90.95

QTRONIX.

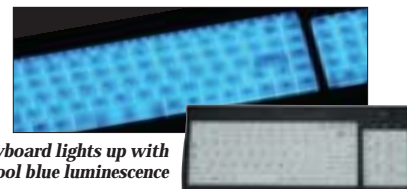
## 108-Key Compact Keyboard



- IBM PC PS/2 or higher compatible
- Use adapter P/N 85500CR, pg 71 for AT systems
- LED indicator for Num, Caps, and Scroll Lock
- 12 function keys
- High quality rubber mechanical key switches
- Size: 15.5"L x 6.5"W x 1.1"H • Weight: 1.9 lbs.

Part No.	Description	1	10	25
180347CR	Scorpius 2KP .....	\$39.95	\$35.95	\$32.49

## Illuminated Computer Keyboard



Keyboard lights up with a cool blue luminescence

Work or play under any lighting conditions with this unique, trendy keyboard. Lit with a cool blue luminescence, all keys on this PS/2 peripheral are instantly identifiable, even in total darkness. Why break the mood of your favorite game with harsh overhead lighting, when you can keystroke with perfect, futuristic, illuminated accuracy?

- Size: 15.3"L x 5.9"W x 1.3"H • Weight: 1.7 lbs.

Part No.	Description	Price
235563CR	Illuminated computer keyboard .....	\$79.95

## Wireless RF Keyboard and 3-Button Scroll Mouse

SALE



Stop struggling with cords that catch and tangle. It provides the performance of corded peripherals without needing a clear path or pointing the mouse and keyboard at the computer. This convenient and compatible keyboard provides one-touch Internet access. Simply plug-in the receiver to your PS/2 interfaces.

**Keyboard:** 104/105 keys enhanced Windows® layout  
• 16 internet/media hot key  
• 27MHz wireless radio frequency

### 3-Button Scroll Mouse:

- Opto-mechanical technology and 27MHz wireless radio frequency
- Resolution: 400 dpi

**System Requirements:** 2 PS/2 ports, CD-ROM, sound blaster compatible card, Windows® 95/98/2000/ME/NT

**Includes:** 4-AA for receiver and mouse; user's guide, and CD-ROM software

Part No.	Description	Price
233381CR	RF Wireless keyboard and mouse .....	\$27.95

QTRONIX.

## Keypads

- Tactile click-sound and touch
- 2-key rollover
- Auto repeat function
- One-year warranty
- 265375CR: 22-key serial
- Serial DB9 connector
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.

**System requirements:**  
IBM PC/XT or higher compatibles; and MS DOS 3.X

**Includes:** 3.5" driver diskette and manual

- 151811CR: 17-key PS/2
- Switch life of 20 million cycles
- Installs into 6-pin mini DIN keyboard connector (no software required) • Size: 5.6"L x 3.4"W x 0.9"D

Part No.	Description	1	10	25
265375CR	Scorpius 22RB .....	\$39.95	\$35.95	\$32.49
151811CR	Scorpius 20PB .....	34.95	31.49	27.95

ione previously known as Qtronix.



## Harman/Kardon Multimedia Amplified System

- 4.5W RMS per amplified speaker
- Transducer: 3" full range driver, magnetically shielded
- Freq. range: 90Hz to 20kHz
- Volume control, bass and treble control, LED indicator and headphone jack
- Size: 8.5"H x 4.5"W x 5.0"D • Weight: 4.7 lbs.

Includes: 16VAC @ 1A power supply

Part No.	Description	1	10
211001CR	H/K speaker system	\$12.95	<b>\$9.49</b>

## 480-Watt Multimedia Speakers

- Input voltage: 120VAC
- 2 magnetically shielded speakers
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Size: 5.5"H x 7.0"D x 9.1"H • Weight: 5.3 lbs.

Part No.	Description	1	10
196066CR	480W speakers	\$39.95	<b>\$35.95</b>

## Dragon 180-Watt Multimedia Speakers

- 2-Channel stereo amplifier
- Magnetically shielded
- Two 3" 4Ω full-range speakers
- Frequency response: 100Hz to 20kHz
- Front panel control for volume, power, 3.5mm mini stereo jack
- Size: 7.0"H x 3.0"W x 5.3"D • Weight: 2.0 lbs.

Power requirements: 2-prong 110VAC input

Part No.	Description	1	10	25
277229CR	180W speakers	<del>\$17.45</del> <b>\$14.95</b>	<b>\$13.45</b>	<b>\$12.09</b>

## Self-Amplified Speaker and Subwoofer System

The key to this 3-piece outstanding speaker system is the 2 1/2" satellite speakers that deliver rich mid and high frequency response. Using advanced computer modeling, Boston Acoustics designed drivers that reproduce seven audible octaves with remarkable accuracy and smoothness. The satellite speakers come with their own stand and MagnaGuard magnetic shielding to prevent video interference.

• Weight: 6.0 lbs.  
Includes: 12VAC @ 2A power supply

Part No.	Description	1	5
213911CR	Speaker/subwoofer system	<del>\$41.95</del> <b>\$39.59</b>	<b>\$35.99</b>

## CREATIVE PCI 32-Bit Sound Card

Listen to music come alive using the analog four-speaker output - even if your sound source doesn't support 3D sound! Utilizes the same EMU10K1 audio processor as the Sound Blaster Live, the most powerful audio chip available today. This translates into higher frame rates in your games, more bandwidth for 3D audio and an all-around fantastic sounding audio experience.

- Operating system: Windows® NT 4.0 or 95/98
- Connectors: 2 audio line-out/mini-phone stereo 3.5 mm F, 1 microphone input/mini-phone mono 3.5 mm F, 1 audio line-In/mini-phone stereo 3.5 mm F, 1 game port/MIDI generic DB-15 F
- Max sampling rate: 48 kHz

Includes: CD-ROM drivers

Part No.	Description	1	5
249404CR	PCI sound card	\$36.95	<b>\$35.19</b>

## Powered Subwoofer System

The satellite speakers deliver big stereo sound in a small package that will complement any desktop. And the compact subwoofer discreetly belts out the bass to make your music and gaming experiences the best they can be.

- Frequency response: 110Hz - 18kHz ±3dB
- Input impedance: 10KΩ
- Voltage: 110V • Weight: 3.14 lbs.
- Speaker size: 5.4"H x 2.8"W x 4.6"D
- Subwoofer size: 6.0"H x 4.3"W x 5.4"D

Part No.	Description	Price
233390CR	Powered subwoofer system	<b>\$10.49</b>

## Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

Part No.	Description	1	10	50
135247CR	Microphone	\$4.49	<b>\$3.99</b>	<b>\$3.65</b>

## Mouse Pad/USB Label Printer

Labeling envelopes, binders and files is one-click easy with this combination mouse pad and mini-printer. Just highlight the text in your document, or type labels directly and your 18mm label pops out, ready-to-use.

- Compatible with Windows® 98, 98SE and 2000 Professional PCs.

Part No.	Description	Price
235483CR	Mouse pad label printer	<b>\$11.95</b>

## Mice and Trackballs



Part No.	Type	Interface	Description	Size (L" x W" x H")	1	10	25
265471CR	Optical	USB	Mini optical mouse	3.7 x 2.2 x 1.3	\$17.89	<b>\$16.99</b>	<b>\$16.15</b>
199591CR	Optical	USB	3-button w/ optical wheel	3.9 x 2.3 x 1.5	29.95	26.95	24.25
262625CR	Optical	USB	EyeD USB OptiMouse w/ biometric recognition software	5.1 x 2.5 x 1.5	<b>125.95</b>	<b>113.35</b>	<b>113.35</b>
277245CR	Optical	PS/2	3-button opto-mechanical	4.7 x 2.4 x 1.6	7.35	6.65	5.95
265447CR	Optical	PS/2	5-button wireless optical ScrollPro w/ PS/2 to USB adapter	4.9 x 3.0 x 1.6	29.95	28.45	27.29
213330CR	Mechanical ball	PS/2	2-button retractable cord travel mouse	4.5 x 2.4 x 1.1	9.95	8.95	8.95
288972CR	Mechanical ball	PS/2	3-button PS/2	4.2 x 2.5 x 1.3	4.95	4.49	4.05
283223CR	Mechanical ball	DB9 female	3-button serial	4.3 x 2.6 x 1.6	6.15	5.55	4.99
150480CR	Mechanical ball	ADB	Single button Apple mouse	4.8 x 2.4 x 1.2	13.65	12.39	11.27
128995CR	Trackball	PS/2	Trackball w/ Menu software	5.5 x 4.6 x 2.0	29.95	26.95	24.25
305082CR	Trackball	PS/2	PS/2 Trackball w/ USB adapter	5.6 x 4.7 x 1.9	29.95	26.95	24.25
121363CR	—	—	Mini mouse pad	7.0"L x 5.5"W	3.79	3.19	<b>2.35</b>



## ATEN 5-Port USB 2.0 PCI Card

40 Times Faster Than the Original USB!

USB 2.0 will offer enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480Mbps
- Full backwards compatible with USB 1.1
- Supports Windows® 98SE/2000/ME/XP
- Hot swappable Plug & Play
- 1 internal USB-A port • 4 external USB-A ports
- PC Power Management v2.2 compliant



**SALE**

Part No.	Description	1	10
197940CR	5-port USB 2.0 PCI card	\$29.95	\$27.75

## Multimedia Card Reader

USB Interface

An easy way to upload photos, files, movies, and data from your multimedia flash memory card to your computer! Drag and drop files from the card to your computer and vice versa.

- USB-A male connector
- 1 expansion slot for multimedia card
- Compatible with PC's and MAC's



**Only \$9.95!**

Part No.	Product No.	1	5	10
278125CR	SDDR-1201	\$9.95	\$8.95	\$7.99

## 2-Port USB-A CardBus PC Card

- New 32-bit CardBus
- PCMCIA type-II card
- Size: 4.6"L x 2.1"W
- USB 2.0 EHCI USB standard; 480Mbps max.

**SALE**



System requirements: Windows® 98, ME, 2000, and Mac OS 8.6 or later

Part No.	Description	1	10
208047CR	USB 2.0 CardBus	\$48.69	\$44.25

## Firewire CardBus PC Card

Designed to connect Firewire devices to any notebook computer, up to 63 devices on the same ports with a max speed for 400Mbps. A mini DC jack is provided on the card for devices that require power through the cable.



**SALE**

- Fully IEEE 1394 OHCI compliance
- 133MB/s CardBus master DMA transfer rate
- Real time transmission data • 32-bit bus
- Peer to peer communication structure
- Backward compatible speeds
- Supports Windows® 98SE/ME/XP/2000 & Apple® MAC OS 8.6 or above • Size: 4.7"L x 2.1"W

Includes: 6' Firewire cable, manual, and ULEAD VideoStudio software

Part No.	Description	1	10
215984CR	Firewire CardBus PC card	\$56.59	\$50.85

See page 73 for USB Cables and Firewire Cables.

## USB Thumb Drives

Thumb drives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above.

- 10 year data retention • Size: 2.9"L x 0.7"W x 0.4"H
- Windows® 98/98SE drivers are available at [www.Jameco.com](http://www.Jameco.com)



**SALE**

Part No.	Description	1	10
217761CR	32MB	\$24.95	\$22.69
217779CR	64MB	\$39.95	\$37.15
217787CR	128MB	\$59.95	\$55.95
217795CR	512MB	\$159.95	\$145.95

## SmartBeam™ Infrared Adapter

Provides the simplest and fastest way to interface your PC or laptop with palmtops, organizers, and even printers. Using industry standard IrDA 1.0 technology, it can communicate with other devices that are IrDA up to 115.2kbps. Connect this device to a serial port and share files, printers, and even send email.



Includes: Software & DB9 M to DB25 F serial adapter

Part No.	Description	1	10
291821CR	Infrared adapter	\$25.89	\$23.29

## USB-A to Joystick (DB15) Adapter

- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility & flexibility
- Input connector: USB-A male
- Output conn.: DB15-pin female connector
- Size: 3.2"L x 2.3"W x 1.3"H • USB Plug & Play



System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers

Part No.	Description	1	10
189510CR	USB to game port adapter	\$21.55	\$19.39

## Everything You Need To Develop Custom USB Peripherals Book

Lakeview (2nd Edition) Provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)



Part No.	Description	Price
171900CR	Complete USB Book	\$49.95



## Wireless Printer Kit

Print up to 100 Feet Away, Wirelessly!

The wireless revolution makes your current printer conveniently cable-free! Works with USB connected Canon, Epson, HP and Lexmark printers.

- USB-B type adapter for printer and USB-A type adapter for PC
- Windows® 98SE/ME/2000/XP and Mac OS X compatible
- Receiver sensitivity: -84dBm • 128-bit encryption • Plug & Play

Part No.	Description	Data Throughput	Frequency Range	Price
235133CR	Wireless printer kit	340kbps	2.4GHz - 2.4835GHz	\$89.95

## External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS 8.5
- Size: 3.1"L x 0.8"W x 1.2"H



**SALE**



Part No.	Description	1	10
208451CR	3-port thumbhub	\$13.99	\$12.65

## 2-Port Mini USB Hub

- USB 1.1 compliant
- Bus powered mode indicated by power LED
- Downstream port supports full and low speed operations
- Plug & Play



System requirements: IBM compatible Pentium® 233MHz or faster and MAC PC, 64MB of RAM, available USB port, compatible with Windows 98SE/ME/2000/XP/Mac OS 8.6 or higher

Part No.	Description	1	10
291856CR	2-port mini hub	\$23.25	\$20.95

## External 7-Port USB Hub

- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 128 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H • Weight: 2.6 lbs.



Includes: 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450CR	7-Port USB hub	\$34.19	\$25.45

## External USB-A IrDA Transceiver

Convert your USB port into an infrared communications port.

- Adjustable base for height and angle • Plug & Play
- Supports standard USB port
- Meets IrDA v1.0 and v1.1
- Supports data transfer rate from 115.2k up to 4Mbit per second
- Transmission distance of 3.3' or 39.4'
- Size: (including base) 2.4"L x 1.6"W x 0.9"H

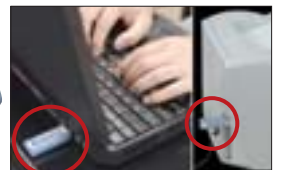


**SALE**

System requirements: Windows® 98/ME/2000/XP

Includes: Manual, extension cable and 3.5" drivers

Part No.	Description	1	10
213903CR	USB-A to IrDA transceiver	\$35.59	\$32.39



For a list of compatible printers, visit [www.Jameco.com](http://www.Jameco.com) and check on data sheet.

## UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
  - System used: 258A, 356A, AT&T/Ethernet 10BaseT
  - Miswire, open, short tests
- Requires: 9V battery (recommend P/N 151095CR, pg 159)
- Includes: Zipper case



Part No.	Size	1	10
115895CR	4.5"L x 2.5"W x 1.3"H	\$29.95	\$26.95

## Modular Cable Tester

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc.



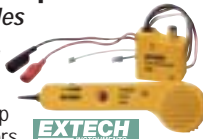
- Check for cable continuity, miswiring, open, short, grounding, and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM & BNC F-F
- On-board conn.: 2 RJ45F (tester) & 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)

Includes: Manual and test cables

Part No.	Description	1	10
145710CR	Modular cable tester	\$84.95	\$76.49

## Tone Generator & Amplifier Probe For Tracing Wires & Cables

- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Output jacks for both headphones and handsets

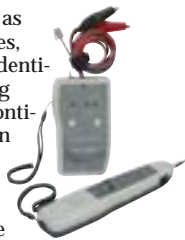


Includes: Alligator test leads, modular phone connector cables, 9V battery, and carrying pouch

Part No.	Description	1	10
198002CR	Tone gen. & amp. probe	\$79.95	\$71.95

## Net Toner and Probe Kit

With testing functions such as sending tones, verifying lines, indicating line conditions, identifying tip and ring, providing "talk" battery and testing continuity, you can use this kit on single conductor, twisted pairs, coaxial cables, and non-energized electrical wiring. Connections include alligator clips, RJ45 jacks and RJ12 plugs.



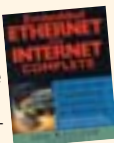
Includes: Padded zipper case w/ belt loop & spare tips

Part No.	Description	1	5
227897CR	Net toner & probe kit	\$79.95	\$76.95

## Complete Embedded Ethernet and Internet Book

**Lakeview Research** This book is organized for anyone who wants to design, program, or learn about networking with embedded systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and internet communications, serving web pages, etc. (482 pages, 2003)

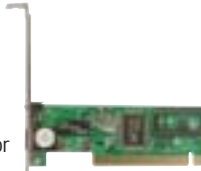
• Size: 7.0" x 9.0" • Weight: 1.7 lbs.



Part No.	Description	Price
236945CR	IC Design Projects Book	\$44.95

## PCI Ethernet Card

- 32-bit PCI local bus master architecture
- Complies with IEEE802.3/IEEE802.3u Ethernet Standard
- Plug and play installation
- Auto detection of 10Mbps or 100Mbps • RJ45
- N-Way 10/100 auto negotiation
- Supports half and full duplex operation



Includes: 3.5" diskette drivers and user's guide

Part No.	Product No.	1	10
285501CR	RTL8139D	\$13.49	\$12.15

## PCI Ethernet Card

- 32-bit PCI local bus master architecture
- Complies with IEEE802.3/IEEE802.3u Fast Ethernet
- Plug and play installation
- N-Way 10/100 auto negotiation • RJ45
- Full duplex auto negotiation and flow control



Part No.	Product No.	1	10
285510CR	905B	\$13.99	\$12.59

## PCI Ethernet Card

- 32-bit PCI bus master DMA
- Complies with IEEE802.2 and 802.3
- 6kB cache on-board
- RJ45 connector
- 10/100 auto negotiation
- Plug and play installation
- Supports Windows® 95/98/2000/NT3.51/NT4.0



Part No.	Product No.	1	10
285528CR	GD82559	\$13.99	\$12.59

## PHOEBE PCI Ethernet Card

10/100Mbps, Auto Detect

- 32-bit PCI bus mastering
- Complies with IEEE 802.3 ethernet standards
- Auto set IRQs & I/O address
- Auto negotiation functions
- Plug & Play installation
- Full duplex and half duplex operation • RJ45



Includes: 3.5" disk drivers and manual

Part No.	Description	1	10	25
173606CR	RJ45 (10/100Mbps)	\$12.95	\$12.29	\$11.69

## ISA Ethernet Card

- 16-bit ISA
- Complies with IEEE 802.3i 10Base-T and IEEE 802.3 10Mbps CSMA/CD local area network
- Plug & Play
- Full-duplex support
- RJ-45/AUI/BNC port
- LED indicator for activity
- Size: 6.1"L x 4.0"H
- For manual and drivers visit [www.Jameco.com](http://www.Jameco.com)



Part No.	Product No.	1	10
289238CR	3C509B-Combo	\$9.49	\$8.99

Opening an account is easy!!  
Call 1-800-831-4242 for details today.

## IBM® 8-Port Ethernet Hub

Although designed to the exacting standards of IBM for use in large corporate networks, its price and easy setup make it perfect for small office or home office use. Compatible with all standard STP, UTP, and FTP cables. Can be cascaded to support larger networks via the MDI (uplink) port.



- Size: 8.7"W x 5.3"D x 1.1"H • Weight: 1.7 lbs.

Part No.	Description	1	10
226149CR	8-port hub	\$44.95	\$39.95

## NETGEAR® 4-Port Firewall Router

11Mbps Cable/DSL

This true firewall is broadband capable, and provides you with the utmost in business class security – Denial of Service (DoS) protection and Intrusion Detection using Stateful Packet Inspection (SPI), URL access and content filtering, logging, reporting, and real-time alerts. Up to 253 users can access your broadband connection at the same time.



- Size: 7.4"W x 4.9"D x 1.3"H • Weight: 1.8 lbs.

Includes: 10' CAT5 cable, power adapter, user guide & CD-ROM software

Part No.	Description	Price
233331CR	11Mbps cable/DSL firewall router	\$75.15 <del>\$75.15</del> <b>\$67.75</b>

## AUI/10BaseT Transceiver

Provides connectivity with work stations equipped with AUI ports to 10BaseT ethernet local area network. Switch selectable SQE (signal quality error)/ "Heartbeat Test" to detect collision.



- IEEE 802.3 10BaseT compliance
- 4 LED indicators for receive, transmission, collision and link
- AUI 15-pin RJ45 connector
- Size: 2.3"L x 1.7"W x 0.8"H • Weight: 0.2 lbs.

Part No.	Description	1	10
215917CR	Ethernet transceiver	\$29.95	\$27.95

## intel® AnyPoint Home Network

Powerful, Simple, Fast Network!

Save money sharing files, printers, modems and DSL connections on a network. Installing networks require Ethernet cards, hubs, cables, reading extensive manuals, opening up your computer to install hardware, and so on. Intel introduced the AnyPoint Home Networking System. Install this network in three easy steps: connect the cables to the parallel port of your PC & existing phone lines of your home, install the software with it's tutorial interface, and you have a network up and running.



Only \$9.95!

Includes: 2 phone cables, 2 data cables (parallel cables), 2 power supplies, manual & CDROM drivers

System requirements: 486 or higher processor, Windows® 95/98, 8MB of RAM, 18MB of hard disk space, parallel port for printer use

Part No.	Size	Price
220417CR	3.8"W x 3.8"D x 8.0"H	\$9.95



## ISA 2-Port High-Speed Serial I/O

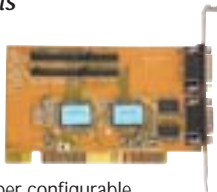
### Dual 16C550 UART Ports

- 16-byte FIFO
- Transfer rates up to 921kb/sec.
- Dual high-speed serial ports
- 2 DB9 male connectors
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Size: 5.0"L x 2.7"W • Weight: 0.5 lbs.

**System requirements:** 486/586 and higher compatibles; Windows® 95/98/NT/2000

**Includes:** Manual and drivers on CD-ROM

Part No.	Description	1	10
171555CR	Dual serial .....	\$24.95	\$21.85



## ISA Single-Port Parallel

### Single Bidirectional Parallel Port

- Single standard and bidirectional port
- Jumper selectable for printer address and port (LPT1 - LPT3)
- Jumper selectable for IRQ addressing (3, 4, 5, 7, 9)
- Size: 4.0"L x 2.0"W • One-year warranty

**System requirements:** PC/XT/AT and higher

Part No.	Description	1	10	25
155660CR	Printer card .....	\$19.95	\$17.95	\$14.95



## PCI High-Speed Multi-Port Serial I/O

### 2, 4 or 8 16C650 Serial Ports

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.
- Supports RQ sharing

**172005CR: Dual 16C650 Serial Ports**

- Two DB9 male connectors
- Size: 4.7"L x 2.8"W • Weight: 0.5 lbs.

**Includes:** Manual and drivers on CD-ROM and floppy

**171547CR: Quad 16C650 Serial Ports**

- Size: 4.7"L x 2.8"W • Weight: 0.9 lbs.

**Includes:** Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

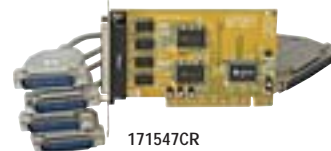
**171660CR: Eight 16C650 Serial Ports**

- Size: 6.5"L x 3.6"W • Weight: 1.8 lbs.

**Includes:** Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

**System requirements:** 486 and higher compatibles, Windows® 95/98/NT/2000

Part No.	Description	1	10
172005CR	2-port PCI serial .....	\$48.45	\$43.65
171547CR	4-port PCI serial .....	129.95	116.95
171660CR	8-port PCI serial .....	179.95	161.95



## ISA 2-Port High-Speed Serial I/O

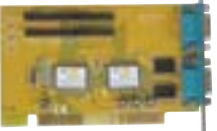
### Dual 16C650 Serial Ports

- 32-byte FIFO
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- DB9 male connector
- Size: 5.0"L x 2.0"W

**System requirements:** 486/586 or higher compatibles, Windows® 95/98/NT

**Includes:** Manual and drivers on CD-ROM

Part No.	Description	1	10
172380CR	Dual serial .....	\$16.69	\$15.59



SALE

## ISA 4-Port Serial I/O

### Quad 16C550 Serial Ports

- High-speed 16C550 UARTs with 16 or 32-byte FIFO
- 4 serial ports; 2 each DB9M and DB25M
- IRQs: 3, 4, 5, 9, 10, 11, 12, or 15
- Supports IRQ sharing
- Weight: 0.7 lbs.
- One-year warranty

**System requirements:** IBM AT & higher compatibles

**Includes:** DB25 male and DB9 male panel bracket assembly and instruction sheet

Part No.	Description	1	10
132572CR	4-port hi-speed serial .....	\$59.95	\$53.95



COM Address	COM Address
1 3F8	5 3F0
2 2F8	6 3E0
3 3E8	7 2E0
4 2E8	8 260

## PCI Ultra High-Speed I/O

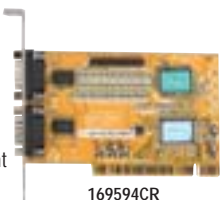
### Serial 16C550 and Parallel Port

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable with throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

**169594CR:**

Two serial DB9M on card and one parallel DB25F panel bracket assembly

Part No.	Description	1	10
146691CR	Single parallel .....	\$23.95	\$21.95
163707CR	Dual parallel .....	28.95	25.95
169594CR	2 serial (16C550) and 1 parallel .....	59.95	53.95



## PCI Ultra High-Speed Parallel

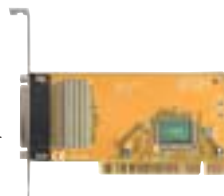
### Single Ultra High-Speed Port

- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7"L x 2.2"W
- Weight: 0.5 lbs.

**System requirements:** 486/586 and higher compatibles; Windows® 95/98/NT/2000

**Includes:** Manual and drivers on CD-ROM

Part No.	Description	1	10
171926CR	PCI single parallel .....	\$39.95	\$35.95



## Parallel Port Complete

**Lakeview Research** Hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

- Windows® 3.1 & Windows® 95
- Selecting cables • PC to PC links
- Size: 7.0" x 10.0" • Weight: 1.4 lbs.

**Includes:** 3.5" diskette

Part No.	Description	Price
138261CR	Parallel Port Complete .....	\$39.95



## LAN Tester Tool Kit For RJ11, RJ45, USB, and BNC

This tester offers simple and easy operation, compatible with RJ11, RJ45, USB, and BNC wiring system; you can verify the condition and status before or after installation within two seconds. The kit includes punchdown tools, crimper tool, and cable tester.

- Shield/ground test • Open/short wire test
- Connected wire display
- Crossover/wrong connection display
- Ethernet 10Base2/5, cable modem, CATV termination value detection

Part No.	Description	1	10
249252CR	LAN tester kit .....	\$99.95	\$89.95
198791CR	9V battery .....	2.85	2.55



## Serial Port Complete

**Lakeview Research** RS-232 & RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install & troubleshoot the links you set up. (306 pages, 1998)

- Size: 7" x 10" • Weight: 1.3 lbs.

**Includes:** 3.5" diskette

Part No.	Description	Price
154771CR	Serial Port Complete .....	\$39.95

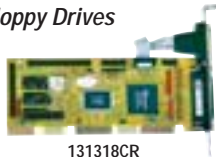
More Books at  
[www.Jameco.com](http://www.Jameco.com)



## ISA IDE Super 16-Bit I/O Plus

### Supports 2 IDE and 2 Floppy Drives

- Parallel printer port interface (P/N 131318CR is bidirectional)
- Game port
- Two RS-232 serial ports
- UART emulation:  
67061CR: 16450; 131318CR: 16550
- Weight: 0.9 lbs.
- One-year warranty



**Includes:** Manual and cables

Part No.	Description	1	10
67061CR	16450 UART I/O	\$14.95	\$13.49
131318CR	16550 UART I/O	29.95	26.95

## ISA Controller Card

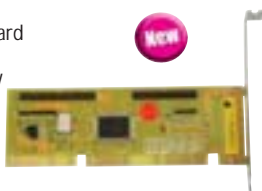
- 16-bit data transfer which is fully compatible with IBM PC/AT interface
- Supports two floppy disk drives (360k, 720k, 1.2Mb, 1.44Mb)
- Controls two "AT BUS" hard disk drives
- High bandwidth host interface works up to 16MHz host I/O clock
- Size: 5.5"L x 2.1"W



Part No.	Description	1	10
206316CR	ISA controller card	\$19.95	\$17.95

## ISA Controller Card

- ISA 16-bit interface
- Supports two IDE hard drives up to 528MB
- Supports two floppy drives from 360kB to 1.44MB
- Jumper selectable for enabling and disabling ports
- Jumper connector for LED drive activity
- Size: 6.2"L x 2.1"W
- Weight: 0.7 lbs.



**Includes:** Quick installation guide and cables

Part No.	Description	1	10
291901CR	ISA controller card	\$28.89	\$25.99

## ISA Fast SCSI-II Controller

- Compatible with DOS, Windows<sup>®</sup>, Windows<sup>®</sup> NT, Windows<sup>®</sup> 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W
- Weight: 0.6 lbs.
- One-year warranty



**Includes:** Setting sheet, ribbon cable, and 3.5" disk

Part No.	Description	1	10
149294CR	ISA SCSI-II controller	\$44.95 <b>\$37.35</b>	\$33.95

## PCI Ultra-II SCSI Controller

- AIC-7890AB chipset
- Windows<sup>®</sup> 95/NT, NetWare, OS/2 compatible
- Plug & Play design
- Internal/external Ultra-II SCSI 68-pin connectors
- Supports Ultra-II SCSI peripherals at speeds up to 80MB/sec. or Ultra/UltraWide peripherals up to 40MB/sec.
- Supports up to 15 SCSI peripherals
- Size: 6.0"L x 3.5"W
- Weight: 0.3 lbs.



Part No.	Description	1	10
191513CR	Ultra-II SCSI	\$69.95	\$63.65

## PCMCIA RS-232 Interface

### PC Card/PCMCIA-Based Serial Port Card

- Low cost single port RS-232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- PCMCIA type II compliant
- Configured as COM1, COM2, COM3 or COM4
- Drivers not available for Windows<sup>®</sup> XP



**Includes:** 1' cable

Part No.	Description	1	10
164451CR	PCM-COM232 card	\$97.95	\$92.95

## PCI GPIB IEEE-488.2 Board

### PCI Bus

- 1 MB/s transfer rate
- 1024 word FIFO buffer
- 7 interrupt lines, shared interrupt capability
- IEEE 488.2 standard interface
- Complete talker/listener/controller
- Transparent interrupt enabling/disabling



Part No.	Mfr. Cross Ref. No.	1	10
177121CR	PCI-GPIB-1M	\$398.95	\$358.95
73154CR	IEEE-488 1 meter cable	36.49	32.79
115781CR	IEEE-488 2 meter cable	37.95	34.19
115801CR	IEEE-488 4 meter cable	38.95	36.19



## 16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/VGA/FDC/HDC, game and most I/O
- Control card installs inside your PC with four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318CR & P/N 78326CR, pg 87)
- Size: 9.5"L x 6.8"W x 1.0"H
- Weight: 5.5 lbs.
- One-year warranty

**SALE**



**System requirements:** IBM PC/XT and higher comp.

Part No.	Description	1	10
131238CR	PC slot extender unit	\$205.95 <b>\$189.95</b>	\$172.95

## Controlling the World with Your PC

**Hightext Publishing** Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)



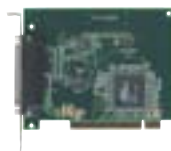
**Includes:** 3.5" disk

Part No.	Description	Price
116943CR	Controlling the World	\$34.95

## Digital Input/Output Boards TTL Level

### PCI Bus

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source
- Software available, see above
- 24-bit digital I/O
- Three 8-bit ports



**Includes:** InstaCal: installation & test utilities software

Part No.	Product No.	1	10
197827CR	PCI-DIO24	\$88.95	\$85.95



## Diagnostic Card for PCI-Bus Systems

This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- One-year warranty



Part No.	Description	1	10
135108CR	PCI-POST diagnostic card	\$265.95	\$239.95



## PC Diagnostic Software "Quicktech '98"

**Self-Booting Software for 386, 486 and Pentium<sup>®</sup> II/MMX/III/AMD Athlon**

- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA compliant video cards; keyboard; monitor; printer; and I/O ports



**Includes:** Loopback testers for DB9 and DB25 serial and DB25 parallel ports, manual and 3.5" disk

Part No.	Description	1	10
134826CR	QuickTech '98 software	\$86.55	\$78.69

## Computer Monitor & NTSC Tester

Mac, PC and TV

- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots, cross-hatch and windows
- Connectors: HDDB15F, DA15F
- Two video conn. for TV, composite and S-video
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095CR, pg 159 or P/N 100845CR, pg 151)
- Size: 5.5"L x 3.0"W x 1.4"H
- Weight: 0.7 lbs.
- One-year warranty



**SALE**

Part No.	Description	1	10
149729CR	Computer monitor tester	\$189.95 <b>\$168.95</b>	\$153.49

## Jameco's Low-Price Guarantee

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!

## 2-Way & 4-Way Monitor/Keyboard/Mouse-to-PC Switch Boxes

### HDDB15/5-Pin DIN/DB9M

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems
- Each user may need 2 or 4 sets of the following cables: P/N 114913CR, 5-pin DIN M-M for keyboard; P/N 66173CR, DB15HD M-M for monitor; P/N 132345CR, DB9 F-F for serial mouse (cables, pg 72)
- Size: 7.5"L x 5.3"W x 2.8"H



132249CR



134017CR

Part No.	Description	Wt. (lbs.)	1	10
132249CR	2-user switch box	1.6	\$17.95	\$15.95
134017CR	4-user switch box	2.3	21.95	19.95

## Keyboard/Monitor-to-PC Switch Box

### HDDB15/5-Pin DIN Female

- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state
- Size: 6.0"L x 4.0"W x 2.3"H
- Weight: 1.3 lbs.



Part No.	Description	1	10
114155CR	2 computers	\$14.95	\$13.49

## Keyboard/Monitor-to-PC Switch Box

### HDDB15/6-Pin Mini DIN Female

- Connects 2 monitors and 2 keyboards to a PC
- Size: 6.0"L x 4.5"W x 2.6"H
- Weight: 1.3 lbs.



Part No.	Description	1	10
79177CR	2-way switch box	\$19.95	\$17.95

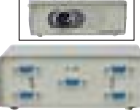
## Serial Port-to-PC Switch Boxes

### DB9 Female

- Connects 2 or 4 serial ports to a PC
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.
- 183417CR: 4-serial port switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.



79126CR



183417CR

Part No.	Description	1	10
79126CR	2-serial port switch box	\$9.95	\$8.95
183417CR	4-serial port switch box	19.95	17.95

## Network Devices-to-Server Switch Box

### RJ45 8P8C Female

- Connects network devices to 4 servers
- 5 RJ45 8P8C females
- Size: 8.0"L x 6.1"W x 2.2"H
- Weight: 2.0 lbs.

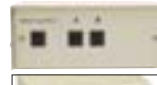


Part No.	Description	1	10
180099CR	4-server RJ45 switch box	\$14.95	\$13.49

## Fax/Modem/Telephone-to-PC Switch Box

### RJ11 6P6C Female

- Connects fax, modem, or telephone to 2 PCs
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.



79142CR

Part No.	Description	1	10
79142CR	2-PC RJ11 switch box	\$9.95	\$8.95

## Parallel Printer-to-PC Switch Boxes DB25 Female

- Connects 2, 4 or 6 PCs to one printer
- 20095CR: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- 155512CR: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Includes: DB25 M-M cable
- 20124CR: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- 289211CR: 6-PC switch box
- Size: 7.6"L x 6.0"W x 2.5"H



20095CR



155512CR



20124CR

Part No.	Description	Wt. (lbs.)	1	10
20095CR	2 PC switch box	1.3	\$8.95	\$7.95
155512CR	2 PC switch box	2.3	6.49	5.85
20124CR	4 PC switch box	1.5	14.95	13.49
289211CR	6 PC switch box	2.0	23.15	20.85



## AverKey Pro PC to TV Converter Box

SALE



- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
  - Built-in flicker filter
  - Resolution: 800 x 600
  - TV brightness control
  - Compatible w/ Microsoft® Windows® 3.0 and higher
  - Size: 6.0"L x 4.0"W x 1.0"H
  - Weight: 2.2 lbs.
  - Two-year warranty
- System requirements:** VGA-based PC, DOS 3.0 or higher, 640KB RAM or larger

**Includes:** Compact PC to video converter box, transformer, cables and manual

Part No.	Description	1	10
167193CR	Video signal pro	\$109.95	\$89.95
		\$89.95	\$79.95

## SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.

- Suitable for SVGA, VGA and multisync monitors
- 176866CR: 2-channel
- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L x 3.3"W x 1.1"H
- Weight: 1.4 lbs.
- 133866CR: 4-channel
- Slide switch for video signal gain control
- Daisy chainable
- Size: 8.8"L x 6.0"W x 1.9"H
- Weight: 3.6 lbs.



176866CR



133866CR

Part No.	Description	1	10
176866CR	2-ch. monitor splitter	\$49.95	\$44.95
133866CR	4-ch. monitor splitter	\$65.49	\$59.95
		\$59.95	\$53.95

## K/V/M Switch Box for up to 4 Computers



- Selects any computer by hot keys or switch
  - Serial and PS/2 mouse and keyboard emulation for automatic PC boot up
  - Three stage cascable for accessing more computers
  - Supports SVGA, VGA and Multisync monitors
  - Keyboard LED status recorded and restored while switching among computers
  - Auto scan for monitoring PC periodically
  - Size: 10.0"L x 7.0"W x 3.0"H
  - Weight: 7.1 lbs.
  - One-year warranty
- Includes:** Manual & power supply (9VDC @ 600mA)



149391CR (front)



149391CR (rear)

Part No.	Description	1	10
149391CR	Switch box	\$229.95	\$209.95
204062CR	6' PS/2 cable	16.95	15.29

## 2-Port K/V/M Switch Box

This two port K/V/M switch box can access two computers from one keyboard, mouse, and monitor. No interface card or software to configure. Operation is as simple as pushing a button on the front panel and entering hot-key commands.



SALE

- Supports Microsoft® IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix, Linux
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video
- High VGA resolution
- Size: 4.3"L x 3.0"W x 1.2"H
- Recommend gender changer, P/N 119301CR, pg 94, when ordering 216063CR and 204062CR.

Part No.	Description	1	10
216063CR	2 port switch box	\$47.99	\$43.65
204062CR	6' PS/2 cable	16.95	15.29

## 4-Port Auto Printer Switch

- Connects up to 4 PCs to 1 printer
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user
- 5 DB25 female connectors

Quantity SAVE

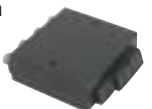


177412CR

Part No.	Description	1	10	25
177412CR	4 to 1 printer	\$6.49	\$5.55	\$4.15

## Coaxial Switch Box

- 3-way switch box, switches from a single input source to 3 outputs
- 60dB isolation – shielded housing
- 75Ω input-output
- 5-900MHz UHF/VHF/FM



Part No.	Description	1	10	25
228241CR	Coaxial switch box	\$4.85	\$4.59	\$4.35



## Single-Line Telephone Filter

In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.

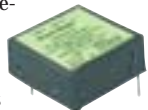


Part No.	Description	1	10	25
196429CR	Telephone filter .....	\$7.95	\$6.75	\$4.99

## Black Magic Telephone Ringing Generator

Switching inverter that produces low-frequency alternating current to signal tele-com ringers or equivalents.

- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection



Part No.	Product No.	1	10	25
145816CR	LBMR12 .....	\$26.95	\$24.49	\$21.95

## RS-232 to RS-485/422 Bidirectional Converters

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-485: terminal block and RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC; except P/N 129218CR 220VAC input
- Weight: 0.9 lbs. • One-year warranty



Now a European Version!

- 197931CR: port powered (power adaptor not included)
- Data rate: 100kbps
- 122956CR: features RS-485SI optical isolation: 2000V
- 129218CR: features 220VAC input
- Includes: 9VDC @ 300mA power adaptor

Part No.	Description	1	10
117701CR	RS-232-485/422 .....	\$57.95	\$51.95
197931CR	RS-232-485/422 .....	69.95	62.99
122956CR	RS-232-485/422 OPT ISO .....	119.99	107.99
129218CR	RS-232-485/422 (220 VAC) ....	42.95	36.95

## Wall Mount Phone Plate with DSL In-Line Filter

Replace your existing regular wall mount phone plates with this phone plate with built-in DSL in-line filter.

- Stop band isolation is 21dB from 25kHz to 50kHz and 25dB or greater
- Filter topology: 2-pole low pass
- DC resistance through T&R to telephone port is 13Ω maximum
- Size: 4.7"H x 3.2"W x .025"Thick



Part No.	Description	1	10
237041CR	Phone mounting plate .....	\$10.75	\$9.75

## Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2
- Weight: 0.8 lbs.
- Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H
- One-year warranty



Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935CR	Bi-converter .....	\$49.95	\$44.95	\$39.95

## Bidirectional Serial/Parallel Converter

### 115.2kbps, 512kB Buffer

- One DB25 female connector, one Centronics 36-pin male connector
- Fully compatible w/ Win® 95
- DCE/DTE selectable
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2
- Weight: 0.8 lbs.
- Size: 3.8"L x 2.4"W x 1.0"H
- One-year warranty



Includes: 9VAC @ 200mA adapter

Part No.	Description	1	10
182983CR	Serial/parallel converter .....	\$48.49	\$44.95

## External 56kbps Fax/Modem with Digital Answering Machine

- Digital telephone answering machine with voice mail system
- RS-232 (DB9 female) interface
- Modem line speed: 300-56000bps
- Error correction: ITU-T V.42, MNP2-4
- Data compression: ITU-T 1.42bis, MNP5
- Flow control: RTS/CTS, XON/XOFF
- Fax/Modem line speed: 2400-14400bps
- Standard compatibility: ITU-T V.17, V.27 ter, V.29
- Command set: Class 1, 1.0, 2 and associated AT command sets
- Size: 6.3"L x 4.0"W x 1.3"H



System requirements: Pentium® or PC compatible with 16MB of memory, available RS-232 slot; Windows® 9x/ME/NT4.0/2000/XP

Includes: RS-232 cable (DB25/DB9 female to DB9 male); phone cord, 9VAC@1A power supply, CD-ROM drivers and manual

Part No.	Description	1	10
216493CR	Serial modem (Rockwell) .....	\$45.95	\$43.65

## Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)



Part No.	Description	1	10	25
116581CR	Short haul modem .....	\$29.95	\$26.95	\$23.95

## Cellphone Headset

The MAB-18 is the first in-ear system headset for mobile telephones. It comes with a 2.5mm jack plug that is compatible with most mobile phones.

- 20Hz to 22,000Hz freq. response (headphones); 40-15,000Hz (microphone)
- Omni-directional microphone
- 106dB sound pressure level
- Impedance: 32Ω (headphone), 1.4kΩ (microphone)



Part No.	Description	Price
227096CR	Cellphone headset .....	\$19.25 \$13.39

## DC-to-AC Inverters

### 75-Watt DC-AC Inverter

- 75 watts continuous power
- Peak surge power: 200W
- AC output voltage: 115VAC
- AC output frequency: 60Hz
- DC input voltage range: 10 – 15VDC
- Optimum efficiency: 90%
- Auto reset short circuit protection
- Overload protection/low battery alarm/low battery shutdown
- Single AC receptacle
- Size: 4.8"L x 1.6"W x 2.4"H



Part No	Description	Price
307791CR	75W inverter .....	\$26.95

### 80-Watt DC-AC Inverter

- Input voltage: 12VDC
- Output voltage: 115VAC ±5%
- Overload and thermal protection
- Output connector: 2-prong receptacle
- Input connector: automobile power plug
- Size: 4.1"L x 1.5"W x 1.5"H
- Weight: 2.0 lbs.



Part No.	Description	1	10	25
202809CR	80W inverter .....	\$20.40	\$18.55	\$16.86

DC-AC Inverters continued on next page.

### 150-Watt DC-AC Inverter

- 150 watts continuous power
- Peak surge power: 450W
- AC output volt.: 110V ±5VAC
- AC output frequency: 60Hz
- DC input voltage range: 10 – 15VDC
- Optimum efficiency: 90%
- Built-in thermal cooling fan
- Single AC receptacle
- Auto reset short circuit protection
- Overload protection/low battery alarm/low battery shutdown
- Size: 5.0"L x 1.9"W x 2.9"H



Part No	Description	Price
307811CR	150W inverter .....	\$34.95

Sale items highlighted in yellow.

Jameco Special Value!

Green quantity discounts highlighted in green.



# DC-to-AC Inverters and DC-to-DC Converter

Color Code Legend				
New	Sale	Qty.	Save	Refurbished Closeout

## 150 & 270-Watt DC-AC Inverters



277181CR

- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Peak power surge capable
- Overload & thermal protection
- Battery low shutdown • Weight: 1.3 lbs.

277181CR: • Size: 4.8"L x 2.9"W x 1.8"H

202016CR: • Size: 9.3"L x 4.1"W x 2.2"H

- Auto adapter and battery clips

Part No.	Description	1	10	25
277181CR	150W auto plug .....	\$28.95	\$27.49	\$26.15
202016CR	270W auto/battery clip ..	\$3.95	51.25	48.69



202016CR



## 400-Watt DC-AC Inverter

Exclusive twin circuit design of dual high-output transformers provides 30% more power. MOSFET technology transistors with split design for cooler internal operating temperature.

Outboard mounted replaceable with dual 25AMP spade-type fuses. Dual grounded standard 110VAC receptacles. Includes: 12VDC cigarette light accessory plug, heavy-duty cable clamps, and spare 25A spade fuse.

- Input: 10-15VDC
- Max. continuous power: 400W
- Surge capacity (peak power): 800W
- 90% max. efficiency • No load draw: 0.3A
- Size: 6.4"L x 6.1"W x 2.1"H • Weight: 2.4 lbs.

Part No.	Product No.	1	10	25
249164CR	VEC031POB .....	\$57.49	\$54.65	\$51.89



## DC-to-DC Power Converter

A high quality 1000mA regulated DC adapter with the ability to convert power from your cigarette lighter plug in 1.5V increments from 1.5V to 9.0V. You may choose from a full range of universal plugs (2.1mm/2.5mm jack/1/8" jack/ 9V battery snaps) and output polarity (center + or -). Perfect for cassette players, CD players, radios, mini TV's and many other battery-run appliances.

- Two DC output cigarette lighter outlets
- Built-in 10A mini blade fuse on plug

**SALE**



218819CR

Part No.	Description	1	10
218819CR	DC-to-DC converter .....	\$11.15	\$10.02
218801CR	10' extension cord .....	5.15	4.63

## PC Power Supplies

**SALE**

### 150 to 400-Watt PC Power Supplies

**Quantity  
SAVE**



201435CR



236929CR



201443CR



196189CR



172822CR

Part Number	Mfr.	Product Number	Power (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Conn. (Mating Conn.)	Certification	Size (L" x W" x H")	Wt. (lbs.)	Pricing		
											1	10	25
201435CR	Xtreme Power	EPA400*	400	+3.3/33, +5/45, +12/15, +5VSB/1, -5/1, -12/1	115/230 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	5.0	\$109.99	\$93.49	\$70.12
155539CR	American Media	JE2033†	300	+3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX-13	UL/CSA/TUV	5.9 x 5.5 x 3.4	3.7	69.95	62.95	56.95
155811CR	—	JE5300	300	+3.3/14, +5/25, +12/12, +5VSB/0.8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 x 5.5 x 3.2	4.1	69.95	62.95	56.65
236929CR	Sunpower	SAP6300*	300	+3.3/25, +5/30, +12/12, -5/0.5, -12/1, +5VSB/1	115/230 @ 50-60 auto sense	3-prong AC receptacle with 6' power cord	ATX	UL/CUL/TUV/CE	5.5 x 5.9 x 3.4	4.1	54.95	49.45	44.49
201443CR	Etasis	EPR2251*	250/250 Dual	+3.3/15, +5/30, +12/14, +5VSB/1.5, -5/0.5, -12/1	90-264 @ 47-63 auto ranging	3-prong AC receptacle with 6' power cord	ATX	UL/CUL/TUV/CE	7.0 x 3.4 x 9.0	2.6	<del>\$81.60</del> 62.99	62.99	56.69
152194CR	American Media	JE2031	250	+3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	6.0 x 5.5 x 3.4	3.5	49.95	44.99	40.49
152514CR	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	49.95	44.99	40.49
196437CR	Hipro	HP235NLXAK	235	+3.3/14, +5/25, +12/8, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	ATX	UL/CSA/TUV/CE	5.5 x 5.9 x 3.2	3.2	24.99	21.25	15.35
196111CR	SPI	FSP23560GT	235	+3.3/14, +5/22, +12/8, +5VSB/0.8, -5/0.3, -12/0.8	100/240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	ATX	UL/CUL/TUV/CE	5.6 x 5.9 x 3.4	3.2	31.95	28.76	25.89
202788CR	Enhance	SFX2015	150	+3.3/7, +5/12, +12/5, +5VSB/0.8, -5/0.2, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	ATX	UL/CUL/TUV/CE	5.9 x 3.6 x 3.4	2.1	29.95	25.46	19.09
196189CR	Emacs	MPW-6150F*	150	+3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	ATX	UL/CUL/TUV/CE	7.5 x 4.0 x 1.6	2.5	34.95	29.75	22.29
132185CR	APS	JE1035	300	+3.3/28, +5/30, +12/10, -5/1, -12/1	110/220 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	4.7	86.59	82.24	78.12
205639CR	Sunpower	SQ-3005	300	+5/30, +12/12, -5/0.5, -12/0.5	115/230 @ 50-60 auto switching	3-prong AC receptacle with 6' power cord	AT	UL/CSA/VDE	5.6 x 5.9 x 3.4	4.1	49.95	44.96	40.46
233525CR	Sparkle Power	SPI-230G	230	+5/23, +12/9, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	AT	UL/CSA/TUV	5.9 x 5.5 x 3.4	2.0	34.95	31.45	28.29
200694CR	Compaq	DPS-200PB-38	200	+5/22, +12/7, -5/0.15, -12/0.15	110/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050CR, pg 158)	AT	UL/CSA/TUV	5.5 x 5.9 x 3.5	2.8	<del>\$40.88</del> 9.99	8.99	8.09
172822CR	Mean Well	AA-230*	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	CSA/TUV/CE	6.0 x 4.6 x 3.4	2.6	49.95	44.96	40.46

\* See photo above

† Pentium 4 rated



isobar®

## Surge Protectors



139686CR



74544CR



19001CR

- Up to \$50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord
- UL 1449 and 1283 listed • Lifetime warranty



### Isobar Premium 19" Rack Mount Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686CR	IBAR12RM	750	12 outlet, 2 isolated filters	4.7	\$119.95	\$107.99

### Isobar Premium Surge Protectors

18981CR	ISOBAR 4	2200	4 outlet, 2 isolated filters	2.4	\$49.95	\$44.95
74544CR	ISOBAR 6	2350	6 outlet, 3 isolated filters	2.7	\$54.95	\$49.95

### Isobar Ultra Premium Surge Protector

19001CR	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5	\$69.95	\$62.95
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## Standard Surge Protectors



168954CR

124337CR

Economical and effective spike and noise suppression with diagnostic LEDs.

- 168954CR:** • \$5,000 Ultimate Lifetime Insurance • Up to 27,000 amp spikes • Weight: 1.2 lbs.
- 124337CR:** • \$35,000 Ultimate Lifetime Insurance • Up to 42,000 amp spikes • Weight: 1.6 lbs.

Part No.	Product No.	Joules	1	10
168954CR	Striker 7	480	\$8.95	\$8.49
124337CR	Super 7	1402	\$17.95	\$15.95

## 6-Outlet Surge Protector

- Standard 6-outlet surge suppressor
- Heavy-duty power cord (14AWG x 3)
- RESET/OFF switch with built-in 15A circuit breaker • Clamping voltage: 400V
- Max. surge dissipation: 900 joules
- Max. surge voltage: 6500V
- Max. spike current: 4500A
- Weight: 0.9 lbs.

Part No.	Description	1	10	100
216485CR	Surge suppressor	\$6.95	\$6.25	\$5.59



## Battery-Backed UPS System

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- Up to \$25,000 Ultimate Lifetime Insurance for connected equipment
- Up to 45 minutes runtime • Wt.: 16.0 lbs.
- 6-outlets, RJ11 for fax/modem protection



Part No.	Product No.	Description	Price
185130CR	IO500	500VA, 6 outlets	\$112.89



## 300-VA UPS System

### With Dual Outlet

- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5–10 mins. @ full load; 10–20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output current: 2.5A (full load)
- Output voltage: 120VAC
- Size: 3.4"W x 5.8"D x 13.2"H • Weight: 12.4 lbs.



Part No.	Product No.	1	10
179961CR	PRB300A	\$59.95	\$53.95



## Personal Surge Arrestor

### PER Series

- Nominal input voltage: 120VAC@50/60Hz (auto sensing)
- 3 outlet with cable TV protection;
- Surge energy rating: 240 Joules
- Peak current—normal mode: 6.5KAmps; common mode: 13.0KAmps
- EMI/RFI noise rejection: 60dB
- UL 1449 TVSS rating: 330V • UL/CSA approved
- Lifetime warranty with \$2,500 lifetime equipment protection policy

SALE



Part No.	Description	1	10
191273CR	3-outlet w/ cable TV	\$13.55	\$12.95

## 6-Outlet Surge Protector

- Metal
- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord
- Size: 12.3"L x 2.4"W x 1.3"H • Weight: 1.5 lbs.



Part No.	Description	1	10	100
20175CR	Metal pwr strip	\$9.85	\$8.85	\$7.85



## Integrated Wall Plate Surge Protectors

- \$5,000 surge equipment guarantee
- Safe-operation indicator lights
- 2 outlets
- Noise-filter
- UL/CUL approved
- Size: 6.9"W x 1.0"D x 10.8"H
- Weight: 0.7 lbs.

235002CR

234991CR

Top View



### 235002CR: Satellite/Cable TV protection

- Cable ready • 670 joules
- Includes: 6-foot coaxial cable

### 234991CR: Modem/Phone/Fax protection

- Internet ready • 410 joules
- Includes: 6-foot phone line cord

Part No.	Product No.	1	6	12
235002CR	SPC300	\$9.95	\$8.95	\$8.29
234991CR	SPT300	9.95	8.95	8.29

SALE

## Compact Surge Protector for Notebook Computers

- Single 3-prong receptacle outlet with telephone modem protection
- 3-prong wall mount type
- 210 joule rating
- Surge LED indicator
- RFI noise blocker
- Size: 2.3"W x 1.3"D x 3.3"H

Includes: 4' RJ11 cord



Part No.	Description	1	10	25
206279CR	Outlet protector	\$6.95	\$6.25	\$5.59

## Power Strip Saver Single Outlets



Before 4 Outlets Blocked After Every Outlet is Usable

Get full use of your power strips and UPS outlets with our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

- Length: 1 ft. • Cord type: SVT



Part No.	Description	1	10	100
199777CR	AC power cord (black)	\$1.69	\$1.55	\$1.39
208338CR	AC power cord (beige)	1.69	1.45	1.09

## "Y" Power Strip Saver Double Outlet

Get full use of your power strips and UPS outlets with the "Y" power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



Part No.	Description	1	10	100
208346CR	Power strip saver	\$2.89	\$2.75	\$2.59

For our complete line of Power Cords, see page 158.





## Glare Free Document Light and Holder **CLOSEOUT**

This ergonomically-designed document light and holder reduces glare, while creating a well-lit work area. Attaches to either side of your computer monitor. Secure the cord to the back of the computer for clutter-free desk, turn on the energy efficient 10,000-hour bulb, and swings out of the way when not in use; adjustable height.



Part No.	Description	Price
224311CR	Glare free document light and holder	<del>\$18.55</del> <b>\$16.75</b>

## 10" B&W Security Monitor w/ Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- Push down front panel for volume and power switch
- BNC jacks for audio/video input
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.



Includes: Manual

Part No.	Description	1	10
253067CR	10" black & white monitor	\$109.00	\$89.95

## 5.6" Color TFT Monitor

NTSC Format

- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 1.2"D x 4.8"H • Weight: 2.6 lbs.



Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description	1	10
201702CR	5.6" TFT color monitor	\$279.95	\$259.95

## 15" SVGA Color Monitor

- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal/vertical size position, recall & trapezoid front control
- HDDB15 male connector • UL/CSA/TUV approved
- Size: 14.5"W x 16"D x 14.6"H • Weight: 45 lbs.



↑ Refurbished

Requirements: IBM PC/XT or higher compatibles

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
153306CR	13.5" monitor viewable ↑	\$99.95	\$89.95

## 14" SVGA Color Monitor†

- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal/vertical position, recall & trapezoid knobs
- Resolution: 1152 x 864 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H • Weight: 25 lbs.



↑ Refurbished

Requirements: IBM PC/XT or higher compatible

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
174537CR	13" monitor viewable ↑	\$69.99	\$64.99

## 4" TFT LCD Monitor

NTSC Format

- TFT color LCD
- Resolution 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position Molex-type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.



Part No.	Description	1	10
172742CR	4" color LCD monitor	\$159.95	\$149.95



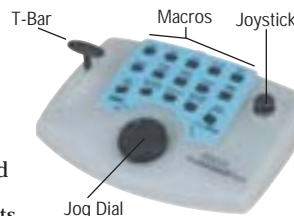
## Pro-Video Editing Controller at Breakthrough Price

CommandPost is a pro-quality video-editing controller for your favorite video/multimedia applications at a new breakthrough special purchase price. Working with your favorite video/multimedia applications has never been easier or faster. Now the most popular controls such as jog wheel, fader, etc., from professional non-linear editors, DVEs and DDRs are brought to your desktop. Includes a free copy of VideoWave Version 4.0 video editing software plus templates for most popular video and graphics applications, including Videonics Effetto Pronto, Apple iMovie, Apple Final Cut Pro, Adobe Premiere, Adobe After Effects, and Digital Origin EditDV.

- Concentric jog/shuttle control
- Centering joystick with pushbutton
- Internally illuminated for readability in darkened edit rooms
- Fader arm, 15 tactile push-button switches
- Supports standard or user-defined keysets
- Easy assignment of control sequences and keyset names

**System requirements:** USB 1.1 compliant PC: Windows® 98 or 2000, Pentium® 133 or higher, 5MB RAM minimum, 8MB minimum hard disk space. MAC: O.S. 8.6 or higher, Power PC, 10MB of RAM minimum, 5MB minimum hard disk space (MAC software available at [www.Jameco.com](http://www.Jameco.com).)

Part No.	Description	Size	Weight	1	10
220329CR	CommandPost	1.5"H x 10.0"W x 7.0"D	2.0 lbs.	<del>\$29.95</del> <b>\$26.95</b>	\$24.25



**SALE**



## PCI Graphics Accelerator Card

- High performance Savage IX 8MB PCI graphics accelerator
- 800K polygon/sec
- Supports texture, transparency, blending, wrapping and mirror, fogging and blending, point sampled, linear & bi-linear texture filtering
- Built-in direct draw accelerator & NTSC/PAL video encoder • 14-bits resolution in IDCT transformation
- Supports per pixel texture perspective correction and Z & alpha buffer
- Size: 5.2"L x 2.2"W • Weight: 0.4 lbs.



Includes: CD-ROM manual and drivers

Part No.	Description	1	10
248840CR	PCI accelerator card	\$39.95	\$35.95

## XBOB-NC Video Text Module

XBOB integrates Decade's third-generation OSD technology into a convenient plug & play format. The command set is nearly identical to that of our popular BOB-3 modules (pg 228), and XBOB includes all of the optional circuitry described in the BOB-3 Application Guide. XBOB lets your PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable character patterns, XBOB supports pseudo-graphics and multiple languages. XBOB generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control XBOB through a fast RS-232 data link, much like a simple serial printer.



- Higher display density; 40x17 characters (680 max.)
- 254 ROM character patterns plus 63 user-definable RAM characters • Character size control
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Faster & more reliable host communication
- Stand-alone operation, for simple source ID or fixed reticle applications
- Improved automatic video mode control

Part No.	Description	1	10
283768CR	XBOB video text module	\$199.95	\$189.95
237243CR	9VDC power supply	3.79	3.45
283776CR	Serial cable	9.95	8.95

For BOB-3 see page 228

## Corporate Customers

Opening an account is easy!!

Call  
1-800-831-4242  
for details today.





## Black & White CCD Camera with 6" Monitor

### Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line res.
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • S/N ratio: 48dB
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92°
- Size: 2.2"W x 2.8"D x 2.1"H

**Includes:** Camera bracket

### Monitor: EIA Format

- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

**Includes:** 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616CR	Camera w/ monitor .....	\$159.95	\$143.95



## Night Vision Infrared Lighted Camera

### EIA Format

- Adjustable camera lens
- Auto iris controlled
- Built-in voltage regulator
- Horizontal synch. frequency: 15.734kHz
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Video output: 1Vp-p; 75Ω
- Audio output: 2Vp-p max.
- FOV: 92°
- Matching conn.: RG59 BNC (P/N 71271CR, pg 96)
- Size: 2.9"L x 2.0"W x 2.0"H
- Lens: 3.6mm
- 380 TV line resolution
- 0.1 lux with F2.0
- Weight: 1.2 lbs.

**Includes:** 12VDC @ 500mA power supply and wall mounting bracket

Part No.	Description	1	10
150404CR	Infrared lighted camera .....	\$119.95	\$109.95



## Black and White Camera with 8mm Lens

- 1/3" CCD image sensor
- Horizontal res: 420TV lines
- Min. illumination: 0.1 lux
- Horizontal freq.: 15.734kHz
- 510(H) x 492(V) EIA signal format
- Vertical freq.: 60Hz
- Clock freq.: 19.0699MHz
- Scanning system: 2:1 interlace • S/N ratio: 48dB
- Electronic shutter: 1/100,000 sec.
- Auto iris lens: DC drive / AES / video drive
- Video out.: 1Vp-p, 75Ω
- Audio out.: 2Vp-p max., 50Ω
- Backlight compensation and auto gain control selectable
- Power requirements: 12VDC@100mA; 24VAC
- Size: 4.5"L x 2.0"W x 2.0"H • Weight: 0.8 lbs.

Part No.	Description	1	10
245041CR	Black & white CCD camera ..	\$109.95	\$99.95



## Mini Dome Color Camera

### NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996CR, pg 151)
- 2 lux/F2.0 • FOV: 92° • Size: 3.5"Dia. x 2.3"H

**Includes:** Mounting hardware

Part No.	Description	1	10
171037CR	Mini-dome camera .....	\$139.95	\$125.95



## Color Camera

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- 15.734kHz synch. freq.
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB
- BNC connector for video • FOV: 42.6°
- Video output: 1Vp-p; 75Ω • 1.0 lux / F1.4
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

**Requires:** 12VDC @ 140mA power supply (recommend P/N 162996CR, pg 151)

Part No.	Description	1	10
171248CR	Color CCD camera .....	\$224.95	\$201.95



## SONY® Color CCD Camera

### Sony Chipset

- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Furnished mini lens: 3.6mm
- Minimum illumination: 0.5 lux @ F2.0
- Signal to noise ratio: >48dB • 330 TV lines
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) and flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system
- Video output: 1Vp-p; 75Ω

**Requires:** 12VDC @ 120mA power supply (recommend P/N 100095CR, pg 152)

**Includes:** Power/signal cable & mounting hardware

Part No.	Description	1	10
213436CR	Enclosed color camera .....	\$179.95	\$161.95



## Mini Enclosed Color NTSC Camera

- 1/4" CCD Sensor
- 350 horizontal TV lines
- 1 lux/F2.0
- Electronic shutter: up to 1/120,000 sec.
- NTSC system w/ 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB • Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92°
- Size: (enclosure) 1.3"L x 1.1"W x 0.9"D
- Weight: 0.3 lbs. • Two-year warranty

**Requires:** 9VDC – 12VDC @ 500mA power supply (recommend P/N 100853CR, pg 152)

**Includes:** BNC/Power cable and mounting hardware

Part No.	Description	1	10
215423CR	Mini enclosed camera .....	\$129.95	\$119.95



## Color Interline Camera

### Water Resistant with Adjustable Mounting Bracket

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω • 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 – 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.

**Includes:** Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	1	10
185017CR	Color camera .....	\$99.95	\$89.95



## SONY® Black & White Low-Light Camera

### Sony Chipset

- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Temp. tolerance: -5°C to 40°C
- Composite output with 420 line resolution
- Lens: 3.6mm
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H • One-year warranty

Part No.	Description	1	10	25
150931CR	Camera board .....	\$84.45	\$76.05	\$68.45
159071CR	8mm lens 38.6' .....	17.95	17.10	16.25



## Black & White Camera

### EIA Format

- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996CR, pg 151)
- Size: 1.3"L x 1.3"W x 1.2"H • S/N ratio: 46dB
- Power consumption: 110mA • FOV: 92°
- Electronic shutter: 1/125,000 sec. (linear)

Part No.	Description	1	10
171029CR	Camera board .....	\$44.95	\$40.45



Don't worry about backorders. Over 99% of our products are in stock!

## We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

## Color CMOS Camera Board

### NTSC Format

- 1/3" image sensor
- 5.0 CMOS lux • FOV: 92°
- 3.6mm lens/F2.0 • 330 TV lines
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H



Part No.	Description	1	10
171011CR	Camera board	\$73.95	\$66.59

## Mini Wireless Color Camera

Now you can place a color video camera with sound almost anywhere! This super-small (1" x 3/4" by 7/8") 1/4 ounce, 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.



Part No.	Description	Price
249025CR	Wireless color camera	\$89.95

## 2.4GHz Wireless

### Audio/Video Transmitter

- Frequency range: 2413MHz to 2470MHz
- Impedance: 50Ω
- Output power: 1 watt
- Video input: 1 Vp-p
- Audio input: 2 Vp-p
- Size: 2.4"L x 1.9"W x 1.4"H

#### Includes:

12VDC @ 1A wall adapter, RCA patch cable, antenna, and mounting hardware

#### 179864CR:

- For use with 2.4GHz cameras, transmitters, and receivers
- Gain: 3dB; unidirectional



Part No.	Description	1	10
289852CR	Wireless audio/video tran. ...	\$199.95	\$179.95
179864CR	2.4GHz SMA RF antenna	15.95	14.35
179872CR	Wireless extension cable	10.99	9.89

## 4-Channel 2.4GHz Wireless Audio/Video Transmitter System

### CCIR, NTSC, PAL, EIA Format

- ISM Band: 2.413 – 2.470GHz
- Four selectable transmitter and receiver channels
- Antenna mode: dipole (omnidirectional)
- Impedance: 50Ω typical
- Video input: 1 Vp-p composite
- Audio input: 2Vp-p max.
- Weight: 3.2 lbs.

**Includes:** Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables



Part No.	Description	1	10
265308CR	4-ch. wireless system	\$149.95	\$134.95

## 4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

*Make your camera wireless up to 492 feet!*

- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

#### Receiver:

- Non-volatile memory protects system set-up from power loss
- Video loss detection and freeze channel
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- Weight: 1.8 lbs.

**Includes:** RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)



Part No.	Description	1	10
192858CR	4-channel transmitter	\$89.95	\$79.95
192866CR	4-channel receiver	124.95	112.95

## DigiVue™ Digital Surveillance System

This new high-speed PCI video capture card comes with 4-channel video and 1-channel audio input that provides superb digital images from multiple cameras and remote surveillance.

Add up to 4 cards per system controlling up to 16 cameras.

- Input signal: 4 video, 1 audio synchronized mono (with sound card)
- Display: 1/4/9/16/full screen
- Display and record: 60 frames per second (per card)
- Record mode: event/continuous/scheduled
- Enhanced MPEG4 format
- Time/date stamp
- Color adjust: adjustable light, contrast, hue, saturation
- Resolution: 160 x 120 up to 640 x 240
- Multitask: monitoring, recording, PTZ control, remote, back-up
- Motion detection: 16 zone x multi area for each camera
- Size: 4.9"L x 3.6"H
- Storage: HDD, VDRAM, CD-RW, DAT, ZIP
- Support internet monitoring: client software, explorer, or windows media player

**Includes:** CD-ROM software and drivers

**Minimum system requirements:** Pentium® III/800MHz, 128 MRAM, 32M AGP video card or above (recommend Pentium® 4/1.8GHz, 64M AGP video card)

Part No.	Product No.	1	4
262019CR	EDV-XVIEW4	\$237.55	\$225.95

### Cable Assembly (75Ω RG59/U BNC – BNC)

Part No.	Length	1	10	50	100
262730CR	25'	\$10.45	\$10.25	\$9.95	\$9.50
262748CR	50'	17.05	16.25	15.45	14.69
262764CR	100'	30.39	28.89	27.45	25.99



## EyeD Hamster USB Fingerprint Scanner

The EyeD Hamster fingerprint recognition tool for computers focuses on both security and convenience.

This unit, which can be connected to the USB port of a computer and separate from the mouse, provides a simple, convenient and reliable security system instead of using passwords which are hard to remember or can be stolen. Applications such as computer networks, computer security, business IT solutions, E-commerce, banking and financial security and medical information systems are some of the environments where security plays an essential part.

- Assures computer security through fingerprint recognition
- Provide fast matching
- Compact in size, takes up less than 3" of desk space

**Includes:** Installation manual and CD-ROM drivers

**System requirements:** Windows®

95/98/NT4.0/2000/ME/XP, available USB port

Part No.	Description	1	5
262713CR	EyeD Hamster	\$115.95	\$104.35



SALE

## EyeD USB OptiMouse with Biometric Recognition Software

With security and convenience of its finger print recognition module, this is the world's smartest mouse. No need to memorize passwords—the simple yet unique touch of your finger securely protects your PC, network, and the Internet all at once.

- Surface enhanced irregular reflection optical design
- Fingerprint extraction and verification technology
- Applications: PC and network security, Enterprise IT solution, secure files and folders within your PC, E-commerce

**System requirements:** Windows®

95/95/NT/2000/ME/XP, available USB port

Part No.	Description	1	5
262625CR	EyeD USB OptiMouse	\$125.95	\$113.35



SALE

## Jameco's Low-Price Guarantee

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10%!  
Just call us.  
It's that simple!





## Mount your video camera almost anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.



Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.

Part No.	Description	1	5
222746CR	CCTV camera window mount .....	\$39.95	\$34.95

**Mounts easily to your car window**

## 12 Version Camera Mounting Kit

A unique component system allows you to build one of twelve versions for today's smaller cameras. Quality ball housing provides 120° tilt and 360° camera rotation. Shafts are 1/2" dia. Vinyl cover adds a finished and professional look.

- Wall, ceiling and T-Bar clip mounting
- Shafts: 2" (50.8mm), 4" (101.6mm) or 6" (152.4mm) long
- Knob & set screw adjustment CCTV mounts



Part No.	Product No.	Description	Price
224354CR	845-246	CCTV mounting kit .....	<del>\$16.95</del> \$13.29

### Optional Accessories

Part No.	Product No.	Description	Price
224389CR	860	Tri-foot base (not shown) ..	\$7.49
224371CR	861	Square base (not shown) .....	6.29
224362CR	862W	J-Box plate (not shown) .....	8.95

## Mini Indoor Pan & Tilt Mechanism

### Continuous Pan

- Automatic scanning: 0° - 355° angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0° - 90°
- Pan speed: 5"/sec.
- Maximum load: 4.4 lbs.
- Power consumption: 1 watt
- Size: 2.5"Dia. x 2.4"H
- Warranty: 2 years continuous use • Weight: 0.4 lbs.



**Includes:** 24V @ 150mA power supply, wall mount bracket and mounting hardware

Part No.	Description	1	10
215407CR	Mini pan/tilt .....	\$49.95	\$44.95

## Monitor/TV Wall Mount Brackets

- 95° swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included
- Supports up to 66 lbs. • Weight: 9.0 lbs.



Part No.	Description	1	10
181817CR	12"-18" TV wall mount .....	<del>\$29.95</del> \$26.95	\$24.25

## Mounting Brackets for Enclosed Camera

- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360°
- Tilt angle: 90°
- For use w/ enclosed cameras (P/Ns 150404CR, pg 181)
- 171002CR • Color: ivory • Max load: 11 lbs.
- 170982CR • Color: white • Max load: 6.6 lbs.



Part No.	Mfr. Cross Ref. No.	Ht. (in.)	1	10
171002CR	15-B002L	6.4 .....	\$5.49	\$4.95
170982CR	15-B004	2.0 .....	<del>\$6.49</del> 5.49	4.95

## Mini Alarm Siren

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned
- Size: 2.8"Dia. x 2.5"L



Part No.	Description	1	10	50
148152CR	Alarm siren .....	\$8.95	\$7.99	\$6.35

## Audio/Video Adapters

### CAT 5 UTP

- Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation
- Video transmission distance: 1000' color/2000' B/W
- 210471CR: Signal pair: video (BNC), CAT pair 1 (RJ45)
- 220880CR: Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)



**Includes:** 1 RCA to BNC adapter & 2 mounting screws

Part No.	Connector Type	1	10
210471CR	BNC/RJ45 .....	\$29.95	\$26.95
220880CR	BNC/RCA/RJ45 .....	42.95	38.95

## Solar Outdoor Security Light

Dark spots around your business, house or neighborhood are vulnerable to vandalism or burglary. To protect your property, equip it with our new outdoor security lights and motion sensors. All you need are simple tools to mount the unit to the wall.



No complicated wiring or electrician needed. The built-in batteries are rechargeable by sunlight, so if the main power goes out you still have security lighting. The solar panel, which has a 12' cord, can be positioned for optimum light exposure.

- Lights up to 60 times on a single charge
- Charges by day, lights by night
- Complete with built-in motion detector, rechargeable battery and bright halogen light
- Easy to install • Weight: 7.1 lbs.

Part No.	Description	1	10
219580CR	Security light .....	\$71.95	\$64.75

## Outdoor Metal Camera Enclosures

- Plate glass: 3mm thick
- Outdoor use
- 170931CR: without heater
- Clear window area: 2.5"W x 2.3"H
- Max. camera size: 4.0"L x 2.4"W x 2.4"H
- Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.
- 170940CR: w/ heater (keeps optics from fogging)
- Clear window area: 3.5"W x 3.1"H
- Max. camera size: 6.5"L x 3.2"W x 3.2"H
- Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.



Part No.	Description	1	10
170931CR	Camera housing .....	<del>\$29.95</del> \$28.45	\$26.55
170940CR	Camera housing w/ heater .....	62.95	59.89

## SMK RF Modulator

- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V @ 50mA max.
- Video modulation: 1.0V p-p
- RF output impedance: 75Ω (F-type connector)
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H
- Manufacturer No.: WMN2144-01



Part No.	Description	1	5	10
141639CR	RF modulator .....	<del>\$4.45</del> \$2.49	\$2.29	\$2.09

Call 1-800-831-4242 for OEM pricing.

## Lower Your Cost – Spend More!

When you're considering the cost of a security solution, be sure to look beyond the price tag of the components. For instance, our Solar Outdoor Security Light above might seem extremely costly versus a regular light fixture at your local hardware store. But if you need to bring out an electrician, the "cheap" solution is much more expensive. Likewise, when installing video equip-

ment, consider the cost of both the equipment and the installation. Wireless cameras and monitors may seem costly compared to their hardwired brethren, but in a new installation, the job may be completed for less cost using the more expensive equipment.



**Practical Practices**  
Money Saving Tips for the Engineer



See [www.Jameco.com](http://www.Jameco.com) for accuracy and complete specifications

See [www.Jameco.com](http://www.Jameco.com) for accuracy and complete specifications

Color Code Legend  
New Sale Qty. Save

New Lower Prices  
Marked in Orange

MASTECH

Mastech M300

- 2000 count
- 6 functions
- Extremely low cost



Pocket Sized

P/N 220812CR

\$9.79

Sizes shown are for relative comparisons.

MASTECH

Mastech M830B

- 2000 count
- 6 functions
- Extremely low cost




P/N 220855CR

\$9.95

JAMECO

Jameco JE110

- 2000 count
- 6 functions
- Pocket size with 100µV resolution



Pocket Sized

P/N 119212CR

\$19.95

MASTECH

Mastech MAS830L

- 2000 count
- 7 functions



New Lower Prices

P/N 220759CR

\$13.95

MASTECH

Mastech MAS838

- 2000 count
- 8 functions
- Temperature



P/N 220741CR

\$22.95

MASTECH

Mastech M3900

- 2000 count
- 8 functions
- AC current



P/N 220821CR

\$28.95

EXTECH

Extech MV110

- 2000 count
- 8 functions
- Tilttable display



P/N 197958CR

\$36.95

METEX

Metex M3800

- 2000 count
- 8 functions
- Auto-zero



P/N 27115CR

\$39.95

BelMERIT

BelMerit DX460L

- 2000 count
- 9 functions
- Inductance
- Frequency



Sizes shown are for relative comparisons.

P/N 147096CR

\$94.95

MASTECH

Mastech MY64

- 2000 count
- 11 functions
- Temperature
- Frequency



P/N 220775CR

\$38.79

Basic Measurement Functions															Test Functions				Special Functions				Price				
Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor h <sub>FE</sub> Test	Autorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Price	
														°C	°F											1	5
220812CR	Mastech M300	2000	6	1mV	2 - 500	200 - 500	200mA	—	2k - 2M	—	—		—	—	—	✓		✓						4.7 x 2.7 x 0.8	220812CR	\$9.79	\$8.81
220855CR	Mastech M830B	2000	6	100µV	200m - 1000	200 - 750	200µ - 10	—	200 - 2M	—	—		—	—	—	✓			✓					5.0 x 2.7 x 1.0	220855CR	9.95	9.45
119212CR	Jameco JE110	2000	6	100µV	200m - 1000	200 - 750	200µ - 10	—	200 - 2M	—	—	↔	—	—	—	✓			✓					4.8 x 2.6 x 1.0	119212CR	19.95	17.95
220759CR	Mastech MAS830L	2000	7	100µV	200m - 600	200 - 600	200µ - 10	—	200 - 2M	—	—		—	—	—	✓		✓	✓					5.7 x 3.0 x 1.4	220759CR	13.95	13.24
220741CR	Mastech MAS838	2000	8	100µV	200m - 600	200 - 600	2m - 10	—	200 - 2M	—	—		—	-20 to 1000	—	✓		✓	✓					5.7 x 3.0 x 1.4	220741CR	22.95	21.79
220821CR	Mastech M3900	2000	8	100µV	200m - 1000	200m - 700	20µ - 10	20µ - 10	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.4 x 1.3	220821CR	28.95	27.49
197958CR	Extech MV110	2000	8	100µV	200m - 1000	200m - 750	20µ - 10	20µ - 10	200 - 200M	—	—		—	—	—	✓		✓	✓					7.3 x 3.5 x 1.3	197958CR	36.95	35.19
27115CR	Metex M3800	2000	8	100µV	200m - 1000	200m - 700	20µ - 20	20µ - 20	200 - 20M	—	—		—	—	—	✓		✓	✓					6.8 x 3.5 x 1.3	27115CR	39.95	35.95
147096CR	BelMerit DX460L	2000	9	100µV	200m - 1000	200m - 750	200µ - 10	200µ - 10	200 - 20M	2n - 2000µ	20m - 20		2k - 20M	—	—	✓	✓	✓	✓					8.0 x 4.0 x 1.5	147096CR	94.95	90.25
220775CR	Mastech MY64	2000	11	100µV	200m - 1000	200m - 700	2m - 10	2m - 10	200 - 200M	2n - 20µ	—	↔	2k - 20k	-20 to 1000	—	✓		✓	✓					7.4 x 3.6 x 1.3	220775CR	38.79	34.91
177480CR	AEEC 2890	2000	11	100µV	200m - 1000	2 - 700	2m - 10	200m - 10	200 - 20M	2n - 20µ	—		20k	-20 to 1000	—	✓		✓	✓					8.0 x 4.0 x 2.0	177480CR	52.49	47.24
182035CR	Fluke 73-III	3200	9	100µV	320m - 600	320m - 600	320m - 10	320m - 10	320 - 32M	—	—		—	—	—	✓		✓	✓	✓	✓			6.6 x 3.0 x 1.1	182035CR	158.95	150.99
220767CR	Mastech MY68	3260	12	100µV	326m - 1000	3.26 - 700	326µ - 10	326µ - 10	326 - 32.6M	326n - 32.6µ	—		32.6k - 150k	—	—	✓		✓	✓	✓	✓			7.4 x 3.6 x 1.3	220767CR	35.95	32.36
216514CR	Metex ME-31	4000	10	100µV	400m - 1000	400m - 750	4m - 20	4m - 20	400 - 4M	—	—		—	—	—	✓		✓	✓	✓	✓	✓		7.3 x 3.3 x 1.5	216514CR	56.95	54.15
211650CR	Extech MN26	4000	11	100µV	400m - 600	400m - 600	400µ - 10	400µ - 10	400 - 40M	4n - 200µ	—		10 - 10M	0 to 760	0 to 1400	✓		✓	✓	✓	✓			4.8 x 2.4 x 1.6	211650CR	39.95	37.95
221997CR	Metex M3270D	4000	12	100µV	400m - 1000	4 - 750	400µ - 20	400µ - 20	400 - 40M	4n - 400µ	—		4k - 4M	—	—	✓		✓	✓	✓	✓			7.1 x 3.3 x 1.3	221997CR	79.95	75.95
117372CR	Metex M3850D	4000	14	100µV	400m - 1000	400m - 750	400µ - 20	400µ - 20	400 - 40M	4n - 400µ	—	↔	4k - 40M	-40 to 1200	—	✓		✓	✓	✓	✓			7.2 x 3.3 x 1.8	117372CR	104.95	99.69
215589CR	Metex M3890D	4000	15	100µV	400m - 1000	4 - 750	400µ - 20	400µ - 20	400 - 40M	4n - 200µ	—		4k - 4M	-40 to 1200	-40 to 2192	✓	✓	✓	✓	✓	✓	✓		7.8 x 3.5 x 1.7	215589CR	99.95	94.99
137461CR	Metex M3860D	4000	16	100µV	400m - 1000	400m - 750	40m - 20	40m - 20	400 - 40M	4n - 400µ	40m - 400m		4k - 40M	-40 to 1200	—	✓	✓	✓	✓	✓	✓	✓		7.2 x 3.3 x 1.8	137461CR	149.95	134.99

DMMs continued on page 186

DMMs continued on page 186

AEEC

AEEC 2890

- 2000 count
- 11 functions
- Temperature
- Frequency
- Tilttable display



P/N 177480CR

\$52.49

FLUKE

Fluke 73-III

- 3200 count
- 9 functions
- Autorange
- Frequency
- Analog bargraph



P/N 182035CR

\$64.59

MASTECH

Mastech MY68

- 3260 count
- 12 functions
- Autorange
- Analog bargraph



P/N 220767CR

\$35.95

METEX

Metex ME-31

- 4000 count
- 10 functions/RS232
- Autorange
- Analog bargraph



P/N 216514CR

\$56.95

EXTECH

Extech MN26

- 4000 count
- 11 functions
- Autorange
- Temperature
- Frequency



Pocket Sized

P/N 211650CR

\$39.95

METEX

Metex M3270D

- 4000 count
- 12 functions
- Autorange
- Frequency
- Dual display



New Lower Prices

P/N 221997CR

\$79.95

METEX

Metex M3850D

- 4000 count
- 14 functions/RS232
- Autorange
- Temperature
- Frequency



Analog Bargraph

P/N 117372CR

\$104.95

METEX

Metex M3890D

- 4000 count
- 15 functions/USB
- Autorange
- Temperature
- Frequency



Triple Display

P/N 215589CR

\$99.95

METEX

Metex M3860D

- 4000 count
- 16 functions/RS232
- Autorange
- Temperature
- Frequency



Dual Display

True RMS

P/N 137461CR

\$149.95

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Digital Oscilloscopes on page 191

184

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See [www.Jameco.com](http://www.Jameco.com) for accuracy and complete specifications

See [www.Jameco.com](http://www.Jameco.com) for accuracy and complete specifications

FLUKE

- Fluke 110**
- 6000 count
  - 10 functions
  - Autorange
  - Min/Max/Avg

- Fluke 111**
- 6000 count
  - 12 functions
  - Autorange
  - Current

- Fluke 112**
- 6000 count
  - 12 functions
  - Autorange
  - Backlit display
  - Current



Sizes shown are for relative comparisons.

True RMS

P/N 190967CR    P/N 190975CR    P/N 185527CR  
**\$108.95    \$138.95    \$148.95**

FLUKE

- Fluke 175**
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



True RMS

P/N 192655CR  
**\$188.95**

FLUKE

- Fluke 177**
- 6000 count
  - 12 functions
  - Autorange
  - Frequency



True RMS

P/N 192663CR  
**\$208.95**

FLUKE

- Fluke 179**
- 6000 count
  - 13 functions
  - Autorange
  - Temperature
  - Frequency



True RMS

P/N 185535CR  
**\$218.95**

WAVETEK  
Metorman

- Wavetek/MM 37XR**
- 10,000 count
  - 14 functions
  - Inductance
  - Autorange
  - dB display



True RMS

P/N 222527CR  
**\$129.49**

WAVETEK  
Metorman

- Wavetek/MM 38XR**
- 10,000 count
  - 14 functions/RS232
  - Autorange
  - Temperature
  - Frequency



True RMS

P/N 222543CR  
**\$149.49**

MASTECH

- Mastech MY65**
- 20,000 count
  - 8 functions
  - Capacitance



True RMS

P/N 136590CR  
**\$73.49**

METEX

- Metex M4640A**
- 20,000 count
  - 12 functions
  - 4 displays
  - Frequency



P/N 144872CR  
**\$132.95**

FLUKE

- Fluke 187**
- 50,000 count
  - 11 functions
  - Autorange
  - Temperature
  - Frequency



True RMS

P/N 222375CR  
**\$380.55**

BK PRECISION

- B&K BK5380**
- 50,000 count
  - 10 functions
  - Autorange
  - Frequency



True RMS

P/N 185201CR  
**\$149.99**

FLUKE

- Fluke 189**
- 50,000 count
  - 13 functions
  - Data logging
  - Temperature
  - Frequency



True RMS

P/N 182043CR  
**\$398.95**

DMMs continued from page 185

SALE

Basic Measurement Functions

Test Functions

Special Functions

SALE

DMMs continued from page 185

Jameco Part No.	Manufacturer No.	Display Count	No. of Functions	Resolution (max DC)	DC Voltage Ranges (V)	AC Voltage Ranges (V)	DC Current Ranges (A)	AC Current Ranges (A)	Resistance Ranges (Ω)	Capacitance Ranges (F)	Inductance Ranges (H)		Frequency Ranges (Hz)	Temperature Range		Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Aurorange	Analog Bargraph	RS-232 PC Interface	True RMS	Size (H"xW"xD")	Jameco Part No.	Price	
														°C	°F											1	5
216514CR	Metex ME-31 †	4000	10	100µV	400m - 1000	400m - 750	4m - 20	4m - 20	400 - 4M	—	—		—	—	—	✓		✓		✓	✓	✓		7.3 x 3.3 x 1.5	216514CR	\$56.95	\$54.15
211650CR	Extech MN26 †	4000	11	100µV	400m - 600	400m - 600	400µ - 10	400u - 10	400 - 40M	4n - 200µ	—		10 - 10M	0 to 760	0 to 1400	✓		✓		✓	✓	✓		4.8 x 2.4 x 1.6	211650CR	39.95	37.95
221997CR	Metex M3270D †	4000	12	100µV	400m - 1000	4 - 750	400µ - 20	400u - 20	400 - 40M	4n - 400µ	—	↔	4k - 4M	—	—	✓		✓		✓	✓			7.1 x 3.3 x 1.3	221997CR	79.95	75.95
117372CR	Metex M3850D †	4000	14	100µV	400m - 1000	400m - 750	400µ - 20	400u - 20	400 - 40M	4n - 400µ	—		4k - 40M	-40 to 1200	—	✓		✓		✓	✓	✓		7.2 x 3.3 x 1.8	117372CR	104.95	99.69
215589CR	Metex M3890D †	4000	15	100µV	400m - 1000	4 - 750	400µ - 20	400u - 20	400 - 40M	4n - 200µ	—		4k - 4M	-40 to 1200	-40 to 2192	✓	✓	✓		✓	✓	✓		7.8 x 3.5 x 1.7	215589CR	99.95	94.99
137461CR	Metex M3860D †	4000	16	100µV	400m - 1000	400m - 750	40m - 20	40m - 20	400 - 40M	4n - 400µ	40m -400m		4k - 40M	-40 to 1200	—	✓	✓	✓		✓	✓	✓	✓	7.2 x 3.3 x 1.8	137461CR	149.95	134.99
190967CR	Fluke 110	6000	10	1mV	6 - 600	6 - 600	—	—	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓		✓	✓	✓	✓	11.8 x 7.0 x 3.0	190967CR	108.95	103.49
190975CR	Fluke 111	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓		✓	✓	✓	✓	11.8 x 7.0 x 3.0	190975CR	138.95	131.99
185527CR	Fluke 112	6000	12	1mV	6 - 600	6 - 600	6 - 10	10	600 - 40M	1000n - 10,000µ	—		99.99 - 50k	—	—	✓		✓		✓	✓	✓	✓	11.8 x 7.0 x 3.0	185527CR	148.95	141.95
192655CR	Fluke 175*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—	↔	99.99 - 99.99k	—	—	✓		✓		✓	✓		✓	7.3 x 3.5 x 1.7	192655CR	188.95	179.49
192663CR	Fluke 177*	6000	12	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	—	—	✓		✓		✓	✓	✓	✓	7.3 x 3.5 x 1.7	192663CR	208.95	198.55
185535CR	Fluke 179*	6000	13	100µV	600m - 1000	600m - 1000	60m - 10	60m - 10	600 - 50M	1000n - 9999µ	—		99.99 - 99.99k	-40 to 400	-40 to 752	✓		✓		✓	✓	✓	✓	7.3 x 3.5 x 1.7	185535CR	218.95	207.99
222527CR	Wavetek/MM 37XR	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	4m - 40		100 - 10M	—	—	✓	✓	✓		✓	✓		✓	7.8 x 3.6 x 2.4	222527CR	129.49	122.99
222543CR	Wavetek/MM 38XR**	10,000	14	100µV	1000m - 1000	1000m - 750	100m - 10	100m - 10	1000 - 40M	40n - 400µ	—		100 - 10M	-20 to 1300	-4 to 2372	✓		✓		✓	✓	✓	✓	7.8 x 3.6 x 2.4	222543CR	149.49	141.99
136590CR	Mastech MY65	20,000	8	10µV	200m - 1000	2 - 700	2m - 10	2m - 10	200 - 200M	200p - 20µ	—		—	—	—			✓		✓			✓	8.0 x 3.9 x 1.9	136590CR	73.49	66.15
144872CR	Metex M4640A	20,000	12	10µV	200m - 1000	200m - 750	2m - 20	2m - 20	200 - 20M	20n - 200µ	—		20k - 2M	—	—	✓		✓		✓	✓	✓		7.5 x 3.3 x 1.5	144872CR	132.95	126.35
222375CR	Fluke 187*	50,000	11	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—	↔	500 - 999.99k	-200 to 1350	-328 to 2462	✓				✓	✓		✓	8.0 x 3.9 x 2.0	222375CR	380.55	345.97
185201CR	B&K BK5380	50,000	12	10µV	500m - 1000	500m - 750	500m - 10	500m - 10	500 - 50M	50n - 50m	—		0.6 - 500	—	—	✓	✓	✓		✓	✓		✓	7.5 x 3.2 x 1.6	185201CR	149.99	127.49
182043CR	Fluke 189*	50,000	13	1µV	50m - 1000V	50m - 1000	500m - 10	500m - 10	500 - 500M	1n - 50µ	—		500 - 999.99k	-200 to 1350	-328 to 2462	✓		✓		✓	✓	✓	✓	8.0 x 3.9 x 2.0	182043CR	398.95	378.95
214308CR	Fluke 80BK temperature probe for Fluke 175/177/179/187/189 (Jameco P/Ns 192655CR /192663CR /185535CR /222375CR /182043CR respectively)																							214308CR	\$19.95	\$18.95	
222551CR	38SW software/cable for Wavetek/MM 38XR, P/N 222543CR																							222551CR	19.49	18.49	

† 4000-count multimeter photos on previous pages

\* Temperature probe available — see bottom of chart

\*\* RS232 cable and software available — see bottom of chart

High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: ±1.5%, AC: ±5%
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39"
- Probe length: 14"
- Weight: 0.8 lbs.



Part No.	Description	1	10
132290CR	High volt. test probe .....	\$79.95	\$72.95

Pocket Analog Multimeter

- DC/AC voltage ranges: 0 – 500V
- DC current ranges: 0 – 250mA
- Resistance ranges: 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

**Includes:** Insulated probes  
**Requires:** 1.5V battery (recommend P/N 198707CR, pg 159)

Quantity  
SAVE



Part No.	Description	1	10	50
206287CR	Pocket multimeter .....	\$8.95	\$7.61	\$5.71

How to Test Almost Everything Electronic

**TAB Publishing** Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques.

- Size: 7.4" x 9.3"
- Weight: 1.3 lbs.



Part No.	Description	1	10
126199CR	How to Test Everything .....	\$17.95	\$16.15

Passive-Component Digital LCR Meter

- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Inductance ranges: 2000.0uH to 2000.0H
- Capacitance ranges: 2000.0pF to 2000.0µF
- Resistance ranges: 20.000Ω to 20.000MΩ
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off

**Includes:** Test leads, alligator clips, 9V battery & holster

Part No.	Description	1	10
198678CR	LCR Meter .....	\$178.95	\$160.95
189237CR	9VDC @ 300mA adapter .....	4.25	3.59



Digital LCR Meter

- 3½-digit display (0.5" digit height)
- Inductance ranges: 200µH to 200H
- Capacitance ranges: 200pF to 2000µF
- Resistance ranges: 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 3.3"W x 1.4"D x 6.7"H
- Weight: 1.1 lbs.
- One-year warranty

**Includes:** Test leads and 9V battery

Part No.	Description	1	10	25
127538CR	LCR meter .....	\$149.95	\$134.95	\$121.46



Sale items highlighted in yellow.

Jameco's Special Values

Great quantity discounts highlighted in green.

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back! Details on page 239.



## 2000-Count Benchtop Multimeter

- 8 functions, 33 ranges
- LCD display with 0.5" digit height
- Resolution: 100 $\mu$ V maximum
- DC voltage ranges: 200mV – 1000V (0.5% accuracy)
- AC voltage ranges: 200mV – 750V (1% accuracy)
- DC/AC current ranges: 200 $\mu$ A – 20A
- Resistance ranges: 200 $\Omega$  – 20M $\Omega$
- Capacitance ranges: 2nF – 20 $\mu$ F (2% accuracy)
- Diode and continuity test
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 9.6"W x 11.0"D x 3.7"H • Weight: 4.4 lbs.

Includes: Power cord, operations manual & test leads

**INSTEK**

Part No.	Product No.	1	5
229227CR	GDM-8034	\$224.95	\$213.75

## 4000-Count True RMS Benchtop Multimeter with RS-232

- 9 functions, 32 ranges
- 3 $\frac{3}{4}$ -digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100 $\mu$ V maximum
- DC voltage ranges: 400mV – 1000V (0.3% accuracy)
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 4mA – 10A
- Resistance ranges: 400 $\Omega$  – 40M $\Omega$
- Capacitance ranges: 4nF – 40 $\mu$ F
- Frequency ranges: 100Hz – 600kHz
- Diode and continuity test • Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/198-264VAC @ 50-60Hz
- Size: 9.0"W x 9.4"D x 3.3"H
- Weight: 3.3 lbs. • Two-year warranty

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

**Protek**

Part No.	Product No.	1	5
230586CR	B940	\$148.95	\$141.55

## 2000-Count Multimeter

The Fluke 8012A is a portable, bench-type, digital multimeter with 3 $\frac{1}{2}$  digit liquid crystal display (LCD).

- Resolution: 100 $\mu$ V maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20 $\mu$ A – 2A
- Resistance ranges: 2 $\Omega$  – 20 $\Omega$  (low range) 200 $\Omega$  – 20M $\Omega$
- Conductance ranges: 2 $\mu$ S – 200nS
- Size: 7.5"W x 9.6"D x 2.5"H • Weight: 2.6 lbs.

† Refurbished

Part No.	Product No.	Price
203801CR	8012A†	\$199.95

## 20,000-Count True RMS Benchtop Multimeter

- 4 $\frac{1}{2}$ -digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 10 $\mu$ V max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200 $\Omega$  – 20M $\Omega$
- Frequency measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor  $h_{FE}$  measurement available
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.
- One-year manufacturer's warranty

**EZ DIGITAL**

Part No.	Product No.	1	10	25
132564CR	DM441	\$219.95	\$209.95	\$199.95

## 20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage and compare
- Resolution: 10 $\mu$ V max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 20A
- Resistance ranges: 200 $\Omega$  – 20M $\Omega$
- Frequency ranges: 20kHz – 20MHz
- Min., max., average, relative functions
- Logic, diode, transistor  $h_{FE}$  and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.

Includes: Manual, power cable, probes and software

**METEX**

Part No.	Product No.	1	10
166852CR	MXD4660A	\$249.95	\$224.95

## 20,000-Count True RMS Benchtop Multimeter

- 6 functions, 22 ranges
- 4 $\frac{1}{2}$ -digit red LED display with 0.5" digit height
- Resolution: 10 $\mu$ V maximum
- DC voltage ranges: 200mV – 1200V (0.03% accuracy)
- AC voltage ranges: 200mV – 1000V (0.03% accuracy)
- DC/AC current ranges: 200 $\mu$ A – 20A
- Resistance ranges: 200 $\Omega$  – 20M $\Omega$
- Diode test • AC or AC+DC coupling
- Interlocking push buttons for easy selection
- 3600 adjustable tilting bail for maximum readability of display
- Input power: 117VAC or 234VAC @ 50-60Hz
- Size: 13.0"W x 9.0"D x 3.1"H • Weight: 4.7 lbs.

**WAVETEK Meteforman**

Part No.	Product No.	1	5
222578CR	BDM40	\$419.95	\$379.95

## 50,000-Count Dual-Display True RMS Benchtop Multimeter

- 9 functions, 38 ranges
- Dual display indicates ACV and Hz, DCV (ACV) and dBm, or DCV and ACV ripple
- Auto range/manual operating modes
- AC or AC+DC true RMS
- RS-232 interface
- Resolution: 10uV maximum
- DC voltage ranges: 500mV – 1200V (0.03% accuracy)
- Diode and continuity test
- AC voltage (True RMS) ranges: 500mV – 1000V
- DC/AC current ranges: 500 $\mu$ A – 20A
- Resistance ranges: 500 $\Omega$  – 20M $\Omega$
- Capacitance ranges: 5nF – 50 $\mu$ F
- Frequency ranges: 10Hz – 200kHz
- Min., max., dBm, relative and hold functions
- Input voltage: 120/230V @ 50-60Hz
- Size: 9.9"W x 11.5"D x 3.6"H • Weight: 5.7 lbs.
- Two-year warranty

Includes: Power cord, operations manual & test leads

Part No.	Product No.	1	5
229235CR	GDM-8245	\$449.95	\$427.49

## 100,000-Count Dual-Display True RMS Benchtop Multimeter

A feature-rich 5-digit, 100,000 count meter that truly fits all applications and virtually any measurement needed on the workbench or in the field. Two multifunction displays and 16 different measurement capabilities allow wide ranging versatility at an affordable price. The Fluke 45 delivers high performance and flexibility for manufacturing test, depot & field service, as well as R&D applications.

- Multifunction vacuum fluorescent dual display allows the user to measure two different parameters of the same signal from one test connection, and view both measurements at the same time
- True RMS voltage and current, including AC + DC
- Frequency measurement to 1 MHz
- dB measurements: 21 selectable reference impedances from 2 to 8000, and audio power from 2W to 16W • 2.5 reading per second
- Compare (Hi/Low/Pass) function for quick in-tolerance tests • Resolution: 1 $\mu$ V maximum
- 0.05% DC current accuracy for 4-20mA current loop service • 8 functions, 31 ranges
- Diode and continuity test
- DC voltage ranges: 100mV – 1000V
- AC voltage ranges (True RMS; AC-coupled): 100mV – 750V
- DC/AC current ranges: 10mA – 10A
- Resistance ranges: 100 $\Omega$  – 100M $\Omega$
- Frequency ranges: 1kHz – 1MHz
- Size: 8.5"W x 11.3"D x 3.7"H

222367CR: RS-232 interface; Weight: 5.2 lbs

229833CR: GPIB interface with battery; Weight: 7.0 lbs.

222359CR: Battery pack; Weight: 1.8 lbs.

Part No.	Product No.	Description	1	5
222367CR	FLK-45	RS-232 interface	\$848.95	\$806.50
229833CR	FLK-45-15	GPIB interface ...	999.95	949.95
222359CR	FLK-45-01K	Battery pack only	184.95	175.69

**SALE**



**FLUKE**



**SALE**



**SALE**



**Protek**



**FLUKE**





## 90-Watt Digital DC Power Supply

30VDC @ 3A

- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100/240VAC @ 50-60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- Weight: 10.9 lbs. • One-year warranty



Part No.	Product No.	1	10
121152CR	GP4303D	\$189.95	\$179.95

## 100-Watt Triple Output Digital and Analog DC Power Supplies

30VDC @ 3A

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10.0 lbs.



197991CR



197982CR

Part No.	Description	1	10
197991CR	Digital DC	\$198.95	\$178.95
197982CR	Analog DC	168.95	151.95

## 150-Watt Digital Power Supply

30VDC @ 5A

- Adjustable voltage/current outputs • 2A @ 250V fuse
- Constant voltage and current operation • Dual digital display
- LCD displays for both current and voltage
- Coarse/fine adjustment knobs for current and voltage
- Size: 5.4"W x 10.7"D x 6.0"H • Weight: 13.8 lbs.
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Color-coded terminals for positive, negative and ground connections • One-year warranty



Part No.	Description	1	10	25
153242CR	30VDC @ 5A	\$234.95	\$211.49	\$190.35

## 150-Watt Power Supply

50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray • Weight: 12.3 lbs.
- Size: 9.0"L x 4.75"W x 7.5"H • One-year warranty



Part No.	Description	1	10	25
163723CR	50VDC @ 3A	\$143.95	\$136.75	\$129.89



## 30-Watt Digital Benchtop Power Supply

- Single output with adjustable 1.5VDC to 30VDC
- 1A fixed current output
- Large digit backlit display
- Overload and short-circuit protection
- Input voltage: 85-264VAC @ 47-63Hz
- Compact design
- Output terminals
- ON/OFF switch
- Size: 5.5"L x 5.2"W x 1.6"H
- Weight: 1.2 lbs.



Part No.	Product No.	Displays	Power (W)	1	10
301971CR	PSU130	Single digital	30	\$79.95	\$75.95



## 45W to 600W Benchtop Power Supplies

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC

### Analog display power supplies

- Accuracy: 2.5%

### Digital display power supplies

- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits



301920CR



207618CR



207706CR



211692CR

### Single Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
301920CR	HY1503C	2-Analog	45	15/3	3.8 x 6.3 x 9.1	9	\$99.95	\$94.95
301866CR	HY3003D	2-Digital	90	30/3	5.4 x 6.2 x 11.5	10	179.95	170.95
207618CR	HY3005C	2-Analog	150	30/5	5.4 x 6.2 x 11.5	14	159.95	144.95
207626CR	HY3010C	2-Analog	300	30/10	10.4 x 6.5 x 14.4	31	299.95	269.95
207693CR	HY5002	2-Digital	100	50/2	5.4 x 6.2 x 11.5	13	189.95	170.95
301911CR	HY3005D	2-Digital	150	30/5	5.4 x 6.2 x 11.5	13	224.95	213.70
207706CR	HY5003	2-Digital	150	50/3	5.4 x 6.2 x 11.5	13	249.95	224.95
207600CR	HY5005	2-Digital	250	50/5	10.4 x 6.5 x 14.4	17	299.95	269.95
207634CR	HY3010	2-Digital	300	30/10	10.4 x 6.5 x 14.4	31	399.95	359.95
207685CR	HY3020	2-Digital	600	30/20	10.4 x 6.5 x 14.4	42	499.95	449.95

### Multiple Output

Part No.	Product No.	Displays	Power (W)	Voltage (VDC)/Current (A)	Size (W"xH"xD")	Wt. (lbs.)	1	10
211721CR	HY3002-2	2-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	\$249.95	\$224.95
211705CR	HY3002D-2	4-Digital	120	0-30/2; 0-30/2	10.4 x 6.5 x 14.4	23	269.95	242.95
211692CR	HY3003D-2	4-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	289.95	259.95
211730CR	HY3003-2	2-Digital	180	0-30/3; 0-30/3	10.4 x 6.5 x 14.4	28	299.95	269.95
211713CR	HY3003-3	2-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	319.95	287.95
211684CR	HY3003D-3	4-Digital	195	0-30/3; 0-30/3; 5/3	10.4 x 6.5 x 14.4	29	329.95	296.95
301946CR	HY3005D	4-Digital	300	0-30/5; 0-30/5	10.4 x 6.5 x 14.4	26.5	349.95	332.45
301954CR	HY3005D-3	4-Digital	315	0-30/5; 0-30/5; 5/3	10.4 x 6.5 x 14.4	29	369.95	351.45
301962CR	HY5003-2	2-Digital	300	0-50/3; 0-50/3	10.4 x 6.5 x 14.4	26	339.95	322.95

## 150-Watt Linear Power Supply

15VDC @ 10A

- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Over-voltage, overcurrent, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Built-in fan • Input voltage: 110VAC @ 60Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.



Part No.	Mfr. Cross Ref. No.	1	10	25
175265CR	DPS150A	\$149.95	\$134.95	\$129.95

## 225-Watt Analog Power Supply

15VDC @ 15A

- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage operation
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator • Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6"L x 6.2"W x 4.0"H • Weight: 3.8 lbs.



Part No.	Mfr. Cross Ref. No.	1	10	25
175257CR	SPS250A	\$159.95	\$143.95	\$129.56

Visit us on the web at  
[www.Jameco.com](http://www.Jameco.com)

## 250-Watt Analog Power Supply

### 50VDC @ 5A

- 5A @ 250V fuse
- Isolated ground
- Color-coded terminals for ground, positive, negative
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Adjustable voltage/current outputs
- Input voltage: 110VAC @ 50-60Hz
- Constant voltage and current operation
- Color: dark gray • Weight: 13.8 lbs.
- Size: 4.9"L x 7.7"W x 6.7"H



Part No.	Mfr. Cross Ref. No.	1	10	25
175249CR	DPS5050	\$189.95	\$179.95	\$171.49

## 150MHz 2-Channel Digital Oscilloscope

### Color and Monochrome with RS-232/USB/Parallel Interfaces

- Bandwidth (-3dB): 150MHz
- Real-time sample rate: 100MS/s maximum on each channel; equivalent: 25GS/s
- 2 channels with 8-bit vertical resolution
- Record length 125k/CH • FFT function
- Auto set vertical, horizontal, and trigger level
- 15 memory settings
- Vertical sensitivity: 2mV/div – 5V/div
- Time base range: 1nS/div – 10S/div
- Trigger sensitivity: DC – 25MHz: 0.35div or 3.5mV; 25MHz – 150MHz: 1.5div or 10mV
- Input voltage: 100-240VAC @ 50-60Hz
- Frequency counter: 6 digits  $\pm 50$ ppm; AC coupled, 10Hz – 150MHz • Two-year warranty
- Size: 12.2"W x 10.0"D x 5.6"H • Weight: 9.3 lbs.



INSTEK

229307CR: Monochrome scope  
 229358CR: Monoch. w/ RS-232/USB/parallel interface  
 229366CR: Color with RS-232/USB/parallel interface

Includes: BNC cable, power cord & operations manual

Part No.	Product No.	1	5
229307CR	GDS-820	\$1,169.95	\$1,111.49
229358CR	GDS-820S	1,259.95	1,196.95
229366CR	GDS-820C	1,439.95	1,367.95

SALE

## 110-Watt Programmable Linear Power Supply with PC Interface

- 0-36V @ 0-3A
- Resolution: 1mV/1mA
- 10 memory settings
- Voltage/current regulation:  $\pm 0.03\%$  load;  $\pm 0.02\%$  line
- Ripple:  $\leq 2$ mV RMS
- Over-voltage and current protection
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 8.3"W x 9.8"D x 3.5"H
- Weight: 13.2 lbs. • Two-year warranty



Protek

Includes: Manual, power cord, rack-mounting kit, RS-232 cable and software (98/2000/ME/XP compatible)

Part No.	Product No.	1	5
230578CR	P6000	\$298.95	\$283.95

## 200W Programmable Switching Power Supplies with PC Interface

- Voltage regulation:  $\leq 10$ mV load;  $\leq 0.05\%$  line
- Current regulation:  $\leq 5$ mA load;  $\leq 0.05\%$  line
- Output ON/OFF control
- Ripple:  $\leq 20$ mVrms;  $\leq 10$ mA rms
- Over-voltage/over-current/over-power/over-temperature protection
- Standard RS-232C 9-pin female interface
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 8.9"W x 12.0"D x 3.9"H
- Weight: 8.8 lbs. • Two-year warranty



INSTEK

Includes: Power cord, operations manual & test leads

Part No.	Product No.	Description	1	5
229323CR	PSP-2010	0-20V @ 0-10A	\$349.95	\$332.45
229294CR	PSP-603	0-60V @ 0-3.5A	349.95	332.45

## Handheld 5MHz Digital Oscilloscope w/ True RMS Multimeter

- 5MHz bandwidth; 25MS/s sampling rate
- Auto power off
- RS-232 PC interface
- 160 x 160 pixel graphical display with backlight
- Vertical sensitivity: 10mV – 200V per div. (14 div.)
- Single channel with 1M $\Omega$  impedance
- 4000-count dual display with analog bargraph
- Resolution: 100uV maximum
- DC voltage ranges: 400mV to 1000V
- AC voltage ranges: 400mV to 700V
- DC/AC current ranges: 400mA to 20A
- Resistance ranges: 400 $\Omega$  to 40M $\Omega$
- Capacitance ranges: 40nF to 100 $\mu$ F
- Frequency ranges: 1Hz to 5MHz
- Diode, diode and continuity test
- Max/Min/Average w/ sampling rate & graphical plot
- Size: 4.2"W x 2.2" D x 8.3"H • Weight: 1.8 lbs.



EXTECH

FE

Includes: Protective holster, built-in stand, Windows® 95-XP compatible software, RS-232 cable, 6 AA batteries, fuse, test leads, and alligator clips

Part No.	Product No.	1	5
245930CR	381285	\$398.95	\$378.95

## Handheld 5MHz Oscilloscope with 4000-Count Digital Multimeter

- 128 x 128 pixel graphic STN LCD
  - E/L backlight
  - PC interface via RS-232
  - Memory and recall for 4 values
  - Temperature measurement
- Oscilloscope:
- DC-5MHz bandwidth; 20MS/sec. sampling rate; single channel
  - Vertical axis: 3 steps ( $\pm 0.5/5/50$  volts) with 4 divisions
  - Horizontal axis: 16 steps (800ns/div to 26.2ms/div) in 8 divisions
  - Trigger: auto and internal mode, slope and 5 trigger level selectable
  - Text display for peak to peak, min./max. voltage and frequency



221962CR

METEX®

### Digital Multimeter:

- 3½-digit with 43 segment bargraph
- Auto ranging; triple display for related reading; data and range hold; auto/min/max hold and relative offset
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 400uA – 400mA
- Resistance ranges: 400 $\Omega$  – 40M $\Omega$
- Frequency ranges: 4kHz – 4MHz
- Temperature ranges: -40°C – +1200°C
- Capacitance ranges: 4nF – 400 $\mu$ F
- Diode and continuity
- Size (unit): 3.4"W x 1.5"D x 8.0"H • Weight: 3.9 lbs.

Includes: Manual, power adapter and test leads

Part No.	Description	1	5
221962CR	MS-1280	\$349.95	\$332.95
221938CR	RS-232 cable & software	19.95	18.95
221946CR	Scope probe	24.95	23.69
221954CR	Holster	5.95	4.75

## Digital Multimeters on Pages 184-188



## Handheld 2MHz Digital Oscilloscope

- 10MHz for repetitive signals; 2MHz for single shot events
- Input impedance: 1M $\Omega$ /20pF
- Max. input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels
- Vertical resolution: 8-bit
- Timebase range: 0.2 $\mu$ s to 1 hr./div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: run, normal, once, and  $\pm$  slope
- Linearity:  $\pm 1$  bit • Screen hold
- True RMS and dB measurements
- High contrast LCD display w/ 3.3" viewing angle
- Recommend 9VDC @ 300mA power supply (133891CR, pg 151)
- Batteries not included, recommend 151087CR, pg 159
- Weight: 1.0 lb.



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Includes: Insulated BNC-to-alligator clip measurement probes

Part No.	Description	1	5
236507CR	2MHz DSO (HPS10)	\$194.95	\$185.25

## Corporate Customers



Even lower OEM pricing for larger orders!  
 Call 1-800-831-4242 for details today.



## Handheld 20MHz Digital Oscilloscope & Multimeter

- 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- **Oscilloscope:** 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3½-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40µA-400mA; DC current 400µA-400mA; resistance 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes: Use P/N 22891CR or 216047CR, pg 192
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H
- Weight: 9.2 lbs. • One-year warranty



162430CR  
(Shown w/ logic probe  
P/N 162974CR -  
not included)

**Includes:** Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description	1	5
162430CR	20MHz digital scope	\$749.95	\$712.95
162974CR	Logic probe	59.95	53.95
163141CR	Rechargeable battery	45.95	41.49
162966CR	RS-232 cable & software	26.95	24.25
221946CR	Scope probe	24.95	23.69

## Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

### Digital Scope, 15-Function Digital Multimeter & Recorder

The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, and power systems. Automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.

- **Recorder:** dual-channel TrendPlot™
- **Digital Scope:** dual-input 20MHz oscilloscope with 1.25GS/sec. repetitive sampling rate
- **Digital Multimeter:** dual-input 5000-count True RMS meter with ohms, capacitance & temperature
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

### FlukeView Software (Version 3.04)

- Documenting: transfer screens, waveforms & data to your PC for printing or importing to other programs
- Archiving: store and retrieve waveforms with text annotations and create your own library
- Analysis: gather valuable data and enable cursor measurement, extend recording of up to four user-selected measurements, upload waveforms and use cursors for detailed measurements
- Compatible with Windows® operation system



Part No.	Product No.	Price
203131CR	Fluke 123S (refurbished)	\$1,099.95

## Fluke 124 40MHz Oscilloscope w/ 5000-Count Digital Multimeters and Paperless Recorder

The compact ScopeMeter 124 is the rugged solution for industrial troubleshooting and installation applications.

It's a truly integrated test tool, with oscilloscope, multimeter and "paperless" recorder in one affordable, easy-to-use instrument. FlukeView software helps you get more out of your Scopemeter by:

- **(A) Documenting** by transferring waveforms, screens and measurement data from the ScopeMeter to a PC; **(B) Adding** user text to individual ScopeMeter settings provides guidance to the operator when recalling a set-up; **(C) Archiving** creates a library of waveforms with your comments for easy reference and comparison; **(D) Storing** complete Replay cycles for analysis of waveform changes and memory content for back-up purposes; and **(E) Analyzing** use cursors, perform spectrum analysis or export data to other analysis programs.
- Dual-input 40MHz or 20MHz digital oscilloscope
- Two 5,000-count true-RMS digital multimeters
- A dual-input TrendPlot™ recorder
- Connect-and-View™ trigger simplicity for hands-off operation • Optically isolated RS-232 interface
- Shielded test leads for oscilloscope, resistance and continuity measurements
- 10:1 Voltage Probe included for reduced circuit loading • 600 V CAT III safety certified

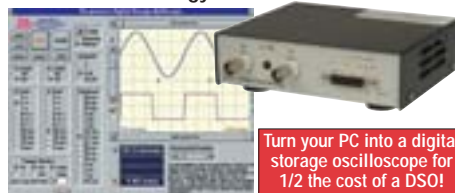


222421CR

Part No.	Product No.	1	5
222421CR	FLK-124	\$1,399.95	\$1,329.50
222412CR	FLK124S (w/ software)	1,699.95	1,614.95

## PC-MultiScope 20MHz 2-Channel Digital Oscilloscope

### mission technology



Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

- 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply: 5VDC @ 500mA and ±0-8VDC @ 250mA • One-year warranty
- Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.

**Includes:** Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230CR	PC-MultiScope 3	\$579.95	\$529.95

## Fluke 190 Series 200MHz Scope-Meters w/ 5000-Count DMMs

### Color and B/W

With up to 200MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27,500 points per input, they're ideal for engineers who need the full capabilities of a high-performance oscilloscope in a handheld, battery-powered instrument.



222404CR

- Dual-input - 200 or 100MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Connect-and-View™ automatic triggering and a full range of manual trigger modes
- Digital Persistence for analyzing complex dynamic waveforms like on an analog scope
- Fast display update rate for seeing dynamic behavior instantaneously
- Automatic capture and replay of 100 screens
- 27,500 points per input record length using ScopeRecord mode • TrendPlot paperless chart recorder for trend analysis up to 22 days
- Up to 1000V independently floating isolated inputs
- Waveform reference for visual comparisons and automatic pass/fail testing of waveforms
- Vpwm function for motor drive and frequency inverter applications
- 1000 V CAT II and 600 V CAT III safety certified
- Four-hour rechargeable NiMH battery pack

**211220CR:** Includes FlukeView software

**Includes:** Test leads, probes and manual

Part No.	Product No.	1	5
222404CR	FLK-196C (100MHz) color	\$2,599.95	\$2,469.95
222383CR	FLK-199C (200MHz) color	2,899.95	2,754.95
222391CR	FLK-199B (200MHz) B/W	2,599.95	2,469.95
211220CR	FLK-199B/S (200MHz) †	1,999.95	1,818.81

† Refurbished

## 50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder

- Sampling frequency: 1.25kHz-50MHz real-time; 1GHz repetitive
- Input impedance: 1MΩ/30pF
- Parallel Port Interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888CR, pg 153)



velleman

### Oscilloscope:

- Timebase: 20ns-100ms per division
- Input sensitivity: 5mV-15V per division with auto step-function
- Recording length: 4096 samples per channel

### Spectrum Analyzer:

- Frequency range: 0 to 25MHz

### Transient Recorder:

- Time scale: 20ms/div-2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

**System requirements:** IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

**Includes:** 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	1	5
200184CR	PCS500AU	\$478.95	\$429.95

Sale items highlighted in yellow. Great quantity discounts highlighted in green.

## Jameco Special Values!



## 20MHz 2-Channel Analog Oscilloscope

**EZ DIGITAL**

Blue CRT for higher resolution!



- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2μs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W
- Two-year manufacturer's warranty
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.

**Includes:** Two (X1/X10) 40MHz probes, power cord, manual, and block diagram

Part No.	Product No.	1	5
136098CR	OS5020	\$399.95	\$385.95

## 20MHz 2-Channel Analog Oscilloscope with 1MHz Function Generator

Basic specs same as OS5020 (above)  
**Function generator**

- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveforms: sine, triangle, square, TTL pulse
- Output impedance: 50Ω
- Output voltage: 14Vp-p
- Size: 12.6"L x 12.6"W x 6.8"H
- Weight: 23.8 lbs.
- Two-year manufacturer's warranty

**Includes:** Two X1/X10 40MHz probes, power cord, manual, BNC to alligator, and cable

Part No.	Product No.	1	10
94650CR	OS5020G	\$529.95	\$499.95

## 20MHz 2-Channel Analog Oscilloscope with Built-in Component Checker

- 6" rectangular CRT with internal graticule
- Built-in component checker/tester for resistors, capacitors, coils, diodes
- Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
- Input impedance: 1MΩ, 20pF
- Max. input (vertical amplifier): 300VDC or AC peak
- Horizontal sweep time: 0.2μs/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
- Internal trigger sensitivity: 20Hz to 20MHz
- Size: 17"L x 14"W x 5.75"H • Weight: 15.5 lbs.

**Includes:** Two X1/X10 60MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
201857CR	P-3502C	\$394.95	\$375.19

## 20MHz 2-Channel Analog Oscilloscope with Alt-Mag and 1mV/div Sensitivity

- Large 6" CRT with internal graticule
- Alt-Mag sweep for simultaneous displays of the main and X5 magnified trace
- Auto-focus
- Input voltage: 100V, 120V, 220V, 240V @ 50-60Hz (selectable)
- Size: 14.8"L x 13.4"W x 5.5"H • Weight: 24 lbs.



**Protek**

### Vertical Amplifier

- Sensitivity – 1mV/div to 1V/div (X5 Mag); 5mV/div to 5V/div in 10 steps (1-2-5 seq.)
- Bandwidth: (-3dB): DC to 20MHz
- Input impedance: 1M ohms, 25pF
- Maximum input voltage: 400V (DC or AC peak)

### Horizontal Sweep

- Sweep time: 0.1μs/div to 0.2S/div in 20 steps (1-2-5 seq); X5 mag: 20ns/div to 40ms/div

### Triggering

- Sensitivity: Internal – DC to 2MHz: 2 divisions; 2MHz to 20MHz: 3 divisions

**Includes:** X1 and X10 probes, power cord & manual

Part No.	Product No.	1	5
220679CR	PROTEK 6502	\$429.95	\$408.45

## 20MHz 2-Channel Analog Oscilloscope with 1mV/div Sensitivity

- 6" rectangular CRT with internal graticule
- Input sensitivity: 1mV/div
- Vertical deflection: 1mV/div – 1V/div (X5Mag); 5mV – 5V/div in 10 steps (1-2-5 sequence)
- Bandwidth (-3dB): DC – 20MHz
- Input impedance: 1MΩ, 25pF
- Horizontal deflection: 0.2μs/div – 0.2s/div in 19 steps (1-2-5 sequence); X10Mag extends maximum sweep rate to 20ns/div
- Trigger system: internal and external trigger system
- External maximum input voltage: 300V (DC+AC)
- Input voltage: 110V/220V @ 48-62Hz
- Size: 14.5"L x 12.2"W x 5.1"H • Weight: 14.3 lbs.



Part No.	Product No.	1	5
226261CR	AEEC-2550S	\$389.95	\$369.95

## 100MHz 2-Channel Analog Oscilloscope

- 2-channel dual trace
- Delay line
- Auto focusing according to intensity
- Size: 16.9"L x 12.6"W x 5.5"H
- Weight: 22.8 lbs.
- Two-year warranty

**Includes:** Two (X1/X10) 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
121179CR	OS5100	\$999.95	\$949.95

Detailed specifications for Test Equipment  
[www.Jameco.com](http://www.Jameco.com)

## 100MHz Delayed Sweep Analog Oscilloscope w/ Cursor Readout 2 Channel

- Bandwidth (-3dB): DC-100MHz
- Cursor readout with 7 measurements
- Time base auto range
- 10 save-and-recall memories



**INSTEK**

- Z-axis modulation input
- TV synchronization
- Vertical sensitivity: 2mV – 5V/div, 11 steps in 1-2-5 sequence; 2mV/div max. to 20MHz
- Max. input voltage: 400V DC+AC peak @ 1kHz or less
- Input impedance: 1MΩ ±2%, 25pF
- Main sweep time (A): 50ns – 0.5s/div
- Delay sweep time (B): 50ns – 50ms/div
- 6" continuously adjustable rectangular CRT with internal graticule, 8x10 div. • Delay time: 1μs – 5s
- Input voltage: 100/120/230VAC @ 50-60Hz (switchable) • Size: 12.2"W x 17.9"D x 5.9"H
- Weight: 19.8 lbs. • Two-year warranty

**Includes:** BNC cable, power cord & operations manual

Part No.	Product No.	1	5
229278CR	GOS-6103	\$1,439.99	\$1,251.55 \$1,137.78

## 100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter 2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz
- Bandwidth: 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less • Weight: 17.6 lbs.

**Includes:** Two X1/X10 100MHz probes, power cord, and operations manual

Part No.	Product No.	1	5
190932CR	OS5100RB	\$1,199.95	\$1,139.95

## Modular Oscilloscope Probes



- 22891CR
- 216047CR
- 236777CR
- Hook and pointed probes
- 216047CR/236777CR: with IC test ground cover and spring ground contact • Length: 5'
- Alligator clip ground wire • BNC male connector
- Maximum input voltage: 600V

Part No.	Bandwidth (±3dB)		Impedance (R/C) *	
	Attenuation		Attenuation	
	x1	x10	x1	x10
22891CR	6MHz	60MHz	1MΩ/180pF	10MΩ/22pF
216047CR	6MHz	100MHz	1MΩ/47pF	10MΩ/16pF
236777CR	6MHz	250MHz	1MΩ/47pF	10MΩ/14pF

\* with 20pF oscilloscope input

Part No.	Mfr. Cross Ref. No.	1	10	50
22891CR	LF101E	\$24.95	\$22.46	\$20.21
216047CR	HF-9100	34.95	29.95	26.95
236777CR	HP-9250	45.95	43.39	37.25

## PROBE MASTER® Oscilloscope Probes

Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: x1, ref, x10
- Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
- Loading: 57pF, 1MΩ (x1); 15pF, 10MΩ (x10)
- Low-resistance gold contacts
- Cord length: 5'

174473CR: 7-piece kit  
212214CR/212257CR: 25-piece kit

Part No.	Product No.	1	10
174473CR	4901-02 (150MHz)	\$49.95	\$44.99
212214CR	4915 (150MHz)	134.95	128.19
212257CR	4915A (250MHz)	149.95	142.49

## Pomona® 100MHz Probe Set

- Complete accessory kit included
- Attenuation: x1/x10
- Bandwidth: 15/100MHz (-3dB)
- Risettime: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF
- Compensation range: 10-60pF
- 48" cable

Part No.	Product No.	Description	1	10
156451CR	4550B	Probe kit	\$51.95	\$46.95

## 100MHz Logic Analyzer USB Interface

DigiView™ is a new 18-channel, 100MHz logic analyzer with professional quality and high portability. DigiView™ uses a deep-capture buffer and real time hardware compression to achieve long period captures without reducing resolution.

- 18-channels, 100MHz
- USB interface and power source for portability
- Real time hardware compression
- Compression ratio up to 256,000:1
- Trigger on rising, falling, or transition of any channel
- Pre-trigger and post-trigger data capture
- Captures up to 5 minutes of data @ 10ns resolution

Part No.	Description	1	5
256866CR	USB logic analyzer	\$498.95	\$474.09
256874CR	Cable replacement	29.95	28.49
256882CR	Grabber clip set (10)	29.95	28.50

## 30-Day Money-Back Guarantee

If you're not satisfied,  
we'll take it back!

Details on page 239.

## 120MHz Frequency Counter

- Frequency and period measurement
- Frequency range: 1Hz to 120MHz
- Gate time: 0.1s, 1s, 10s
- 8-digit LED display (0.3" digit height) with Hz, kHz, MHz, s, ms, us, ns, and overflow
- Input sensitivity: 15mVrms 10Hz - 10MHz;
- 50mVrms at 120MHz
- Selectable low pass filter
- Impedance: 1MΩ, 35pF
- Time base oscillation frequency/aging rate: 10MHz ±1 PPM per month
- Input voltage: 100/120/220/230VAC @ 50-60Hz
- Size: 9.1"W x 11.0"D x 3.7"H • Weight: 3.8 lbs.
- Two-year warranty

Part No.	Product No.	1	5
229243CR	GFC-8010H	\$224.95	\$213.75

## 1.5GHz Frequency Counters

### 2 Channels

- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Size: 10.3"L x 10.0"W x 3.2"H
- One-year warranty

Includes: Fuse, manual and BNC cable

55790CR:

- Frequency range: 0.1Hz to 150MHz (A input); 50MHz to 1.5GHz (B input)
  - Resolution: 0.1Hz to 10Hz (A input); 0.1Hz to 100kHz (B input)
  - Frequency, period, totalize, RPM • Weight: 5.3 lbs.
- 201873CR: With Time Interval and Ratio**
- Frequency range: 0.1Hz to 150MHz (A/B input); 50MHz to 1.5GHz (C input)
  - Resolution: 1Hz to 10Hz
  - Sensitivity: 20Vrms (A, B input); 30Vrms (C input)
  - Impedance: 1MΩ, < 40pF (A, B inputs), 50Ω (C input)
  - Totalize, period & RPM function • Weight: 6.0 lbs.

Part No.	Product No.	1	5
55790CR	FC-7150	\$284.95	\$259.95
201873CR	FC-7150U	329.95	313.49

## 2MHz Sweep Function Generator with Frequency Counter

- Frequency range: 0.02Hz-2MHz in 7 ranges
- Sweep width: 1:1 to 100:1; rate: 20ms to 25s (5Hz-50Hz)
- Output impedance: 50Ω ±5%
- Frequency counter range: 0.2Hz to 50MHz
- Maximum input voltage: 150Vrms @ 1kHz
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H
- Weight: 5.8 lbs.
- One-year warranty

Includes: Probe and detachable power cord

Part No.	Product No.	1	5
94676CR	FG7002C	\$329.95	\$296.95

## 2MHz & 10MHz Sweep Function Generators w/ Frequency Counter

### Function Generator

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges (192671CR); 1Hz to 10MHz (221911CR)
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Output impedance: 50Ω ±10%
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

### Frequency Counter

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVrms for 1.3GHz to 2.7GHz
- Maximum input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax & power cable, manual, serial cable and software

Part No.	Description	1	5
192671CR	2MHz/2.7GHz	\$319.95	\$303.95
221911CR	10MHz/2.7GHz	417.95	396.99

## 2MHz & 3MHz Function Generators w/ Frequency Counter

### Function Generator

- Wave forms: sine, triangle, square, TTL, and CMOS output; 229260CR has ramp
- Frequency ranges: 229251CR: 0.2Hz - 2MHz in 7 ranges; 229260CR: 0.3Hz - 3MHz in 7 ranges
- Output amplitude: >10Vp-p into 50Ω load
- Output impedance: 50Ω ±10%
- DC offset range: <-5V to >+5V into 50Ω load
- Voltage controlled frequency function
- Variable DC offset control

### Frequency Counter

- Input voltage: 115/230VAC @ 50-60Hz
  - Weight: 4.4 lbs. • Two-year warranty
- 229251CR:**
- 4-digit LCD display
  - Ranges: 0.2Hz to 2MHz internal only; with resolution of 0.1Hz to 1kHz
  - Size: 9.1"W x 11.0"D x 3.7"H
- 229260CR:**
- 6-digit LCD display
  - Ranges: INT/EXT switch, 0.3Hz to 3MHz internal and 5Hz to 150MHz external; resolution of 10Hz to 0.1Hz
  - Size: 9.9"W x 11.5"D x 3.6"H

Includes: Power cord, operations manual and leads

Part No.	Product No.	Description	1	5
229251CR	GFG-8020H	2MHz	\$259.95	\$246.95
229260CR	GFG-8216A	3MHz	299.95	284.95



## 2MHz Sweep Function Generator

- Waveforms: sine, square, triangle, pulse, ramp
- Frequency ranges: 0.02Hz – 2MHz in 7 ranges
- Tuning range: 100:1 on each range
- Linear sweep mode
- DC offset and voltage controlled frequency (VCF) inputs
- Output impedance:  $50\Omega \pm 5\%$
- Less than 2% sine wave distortion
- Amplitude: 2Vp-p – 20Vp-p open circuit
- Variable symmetry: 1:1 to 4:1 • TTL sync output
- 20ms to 2s variable sweep time
- Input voltage: 100/120/220/240VAC @ 48-66Hz
- Size: 8.8"W x 10.1"D x 3.3"H • Weight: 8.0 lbs.
- Two-year warranty



**Protek**

Part No.	Product No.	1	5
230594CR	B801	\$244.95	\$232.69

## 2MHz Function Generator

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- DC offset voltage from 0 to  $\pm 10V$ ; can be superimposed to output waveform
- Variable waveform/duty cycle symmetry
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into  $50\Omega$ )
- Input voltage: 110V/220V 50-60Hz
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.
- One-year manufacturer's warranty



**Includes:** Cord, BNC to clip cable, fuse and manual

Part No.	Product No.	1	5	10
66069CR	FG8002	\$189.95	\$179.95	\$169.95

## 3MHz Function Generator

- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency: 0.3Hz to 3MHz in 7 ranges
- Output impedance:  $50\Omega \pm 10\%$
- CMOS output level: 4Vpp,  $\pm 1V$ pp to 14.5Vpp;  $\pm 0.5V$ pp adjustable
- DC offset:  $< -5V$  to  $> +5V$  into  $50\Omega$  load
- Variable controlled frequency input
- Variable DC offset control
- Signal polarity invert button
- Size: 9.6"W x 11.5"D x 3.7"H
- Duty cycle control
- Weight: 4.4 lbs.



**SALE**

Part No.	Product No.	1	5
222594CR	FG2C	\$239.95	\$234.95

## 5MHz Function Generator

Engineered for high reliability and user convenience.

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output impedance:  $50\Omega$
- Coarse and fine tuning
- Size: 10.4"W x 11.7"D x 3.4"H
- Weight: 6.2 lbs.
- Two-year warranty



**BK PRECISION**

Part No.	Prod. No.	Description	1	5
160469CR	BK4011A	0.5 to 5MHz	\$314.95	\$299.95

## METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Function generator capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- Universal counter capable of measuring frequency ranges from 5Hz to 1.3GHz
- DC power supply capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Digital multimeter with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400 $\Omega$  to 40M $\Omega$ ), capacitance (4nF to 400 $\mu$ F) and forward resistance of a semiconductor junction in k $\Omega$
- Size: 14.5"W x 14.0"D x 7.0"H
- Weight: 37 lbs. • One-year warranty



**Less Bench Space – Great Convenience**

**Includes:** Manual, cables and software

Part No.	Product No.	1	5
160864CR	MS9150	\$549.95	\$499.95

Detailed specifications for Test Equipment –  
[www.Jameco.com](http://www.Jameco.com)

## BK PRECISION 150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Variable output control
- Output impedance: 600 $\Omega$
- Low distortion R-C oscillator
- One-year manufacturer's warranty

**Includes:** 9VDC battery

Part No.	Product No.	Size (L x W x H)	Wt. (lbs.)	1	10
166334CR	BK3001	5.9" x 3.2" x 0.8"	0.7	\$78.95	\$75.99



## Laser and Contact Tachometer

This combination non-contact and contact laser tachometer is ideal for measuring the revolving speed of fans, motors, gears, pumps, conveyors, and elevators.

- Photo tachometer range: 10 to 99,999 RPM with accuracy of  $\pm 0.05\% + 1$  digit
- Contact tachometer range: 0.5 to 19,999 RPM with accuracy of  $\pm 0.05\% + 1$  digit
- Measures from up to 6.5 feet from the target for improved safety and accessibility
- Memory stores last, maximum and minimum readings
- Display characters reverse direction for measurement type selected
- Large 0.4" (5-digit) LCD display
- Weight: 0.7 lbs.



**EXTECH**

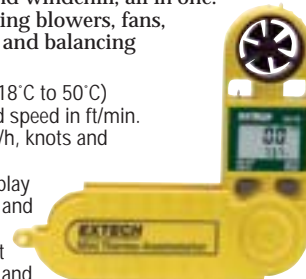
**Includes:** 4-AA batteries, tips and wheel for RPM or linear surface speed, reflective tape, & carrying case

Part No.	Description	1	5
218106CR	Laser contact tachometer	\$248.56	\$225.97

## Mini Thermo-Anemometer

Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- 0°F to 122°F (-18°C to 50°C)
- Measures wind speed in ft/min, MPH, m/s, km/h, knots and Beaufort force
- Large dual display for air velocity and temperature
- Water resistant housing floats and drop tested to 6



**Includes:** CR2032 lithium battery and lanyard

Part No.	Description	1	5
218085CR	Mini thermo-anemometer	\$88.95	\$84.49

## 2dB Sound Level Meter

Ideal instrument to measure OSHA compliance, equipment design, community sound ordinances and sound system installations.

- High & low measuring ranges: High: 75 to 130dB; Low: 35 to 90dB w/ 0.1dB res.
- A and C weighting
- Large: 0.5", 3 1/2-digit display
- Meets ANSI and IEC 651 Type II standards
- Fast/slow response; max. hold with reset button
- Built in calibration check
- Utilizes a 0.49" condenser microphone
- Size: 9.5"L x 2.7"W x 1.0"T • Weight: 0.5 lbs.

**Includes:** Hard vinyl case and 9V battery

Part No.	Description	1	5
218114CR	Digital decibel sound meter	\$221.85	\$201.68



**SALE**

Opening an account is easy!! Call 1-800-831-4242 for details today.

**Corporate Customers**

**See pages 159 – 161  
for Batteries.**



## Hygro + Infrared Thermometer

Combination humidity meter plus infrared thermometer features a super large backlit dual display. The primary display is user selectable for IR or humidity, while the secondary display always displays ambient temperature. The infrared thermometer has a built-in laser pointer with a 8:1 distance to target ratio.

- °C/°F • Auto power off
- Data hold and MAX
- Remote humidity sensor with 39" coiled cable
- Humidity ranges: 10.0 to 95.0% with ±3.5% accuracy
- Air temperature ranges: -4°F to +140°F (-20°C to +60°C) with ±3°F/2°C accuracy
- IR temperature ranges: -58°F to +932°F (-50°C to +500°C); ±2° or ±4°F/2°C accuracy
- Size: 2.8"W x 1.4"D x 5.9"H • Weight: 0.5 lbs.

**Includes:** Stand, holster, probe, battery and case



EXTECH  
INSTRUMENTS

Part No.	Description	1	5
285974CR	Hygro/infrared thermometer	\$148.95	\$141.49

## Electromagnetic Radiation Meter

Electromagnetic radiation is all around us, some of it good, some bad; but there's never been an easier, more portable device to detect and measure it until the ZAP Checker. Now you can measure your microwave oven's emissions or take engineering measurements of HF, VHF, or UHF transmissions. ZAP Checker does it all. Its portability, multiple settings, ultra-high sensitivity and expanded bandwidth allows you to search out EMR whenever and wherever needed.

- 10MHz to 4.5GHz

Totally  
Unique



Part No.	Description	1	10
217808CR	ZAP checker	\$129.95	\$114.95

## Digital Light Meter

- Measures in Lux and footcandle ranges
- Range: Lux – 0 - 50,000 Lux (3 ranges); footcandle – 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs. • One-year warranty



Part No.	Description	1	10
131764CR	Digital light meter	\$99.95	\$89.95

Visit our website for more products.

[www.Jameco.com](http://www.Jameco.com)

## Pocket IR Thermometer with Laser Pointer

The pocket IR thermometer measures the surface temperature of objects which are difficult to reach or unsafe to contact. It also measures hot spots in electrical panels and equipment. In-process temperature measurements. With a 6:1 ratio field of view and built-in laser for improved aim, it covers 90% of surface applications for temperature measurement.

- Temperature range: -58°F to 518°F
- Built-in laser pointer to improve aim
- °F/°C switchable
- Fixed emissivity (0.95) covers 90% of surface applications
- Visual overrange indicator
- 6:1 field of view • Pocket size meter
- Data hold and max hold
- Size: 3.8"L x 2.0"W x 0.9"D

**Includes:** 2 AA batteries

Part No.	Description	Price
219361CR	Pocket IR thermometer	\$59.99

EXTECH  
INSTRUMENTS



## Non-Contact Infrared Thermometers w/ Laser Pointer

- Built-in laser pointer identifies target area
- Field of view: 6:1 (6" distance measures 1" target)
- Automatic data hold when trigger released and auto power off
- Fixed 0.95 emissivity covers 90% of surface application

**Includes:** 9V battery

236451CR:

- Temperature range: -4°F to 500°F (-20°C to 260°C)
- Basic accuracy: ±3% of reading
- Backlighting illuminates display for taking measurements at night or in areas with low background light levels
- Size: 6.7"L x 1.7"W x 1.6"D
- Weight: 0.3 lbs.

EXTECH  
INSTRUMENTS



236451CR

211588CR:

- Temperature range: 0°F to 600°F (-20°C to 320°C)
- Basic accuracy: ±2% of reading
- 2000-count backlit LCD display
- Audible and visible over-range indicators
- Size: 8.3"L x 3.5"W x 1.5"D • Weight: 0.4 lbs.

211588CR

Part No.	Product No.	1	10
236451CR	42500	\$79.95	\$74.95
211588CR	42529	88.95	84.50

## Temperature/Humidity Meter with Min/Max Memory

- Displays (%) relative humidity and temperature (°C/°F) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Temperature range: 14°F to 140°F (-10°C to 60°C);
- Humidity range: 10% to 99%
- 1" high readout
- Size: 4.3"L x 3.9"W x 0.8"Thick

**Includes:** Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	1	10	25
198045CR	Temp./humidity meter	\$38.95	\$34.95	\$32.95



EXTECH  
INSTRUMENTS

## Waterproof Thermometer



EXTECH  
INSTRUMENTS

- 2.75" stainless steel stem
- Digital display of 0.1° resolution
- °C/°F switchable ranges -40°F to 392°F (-40°C to 200°C)
- Max./min. recall of high and low temperature
- HOLD and AUTO-OFF features
- Size: 5.9"L x 0.8"W x 0.7"H • Weight: 0.1 lbs.



Waterproof housing allows thermometer to be completely submerged in water

SALE

**Includes:** LR44 button battery and protective cover

Part No.	Description	1	5
218077CR	Waterproof thermometer	\$17.95	\$17.10

## Water Resistant Multi-Function Sports Timer/Stop Watch

- Time calendar display: hours, minutes, seconds, month, date, and day of the week
- Stopwatch accuracy: 1/100 of a second during the first 30 minutes, 1 second after 24 hours
- 12/24 hour time display mode
- Alarm and snooze function
- Size: 2.2"W x 2.7"H x 0.8"Thick • Weight: 0.1 lbs.



Part No.	Description	Price
239652CR	Sports timer/stop watch	\$7.49

## LCD Stopwatch with Alarm and Calendar

- Water resistant housing, complete with 39" neck strap and battery
- Accurately times a two-person competition • Large LCD display
- Accurate to ±3 seconds/day
- Displays accumulated elapsed time and split-time measurements
- 12/24 hour clock operation with settable hour chime, wake and snooze alarm
- Timing capacity of 23 hours, 59 minutes, and 59 seconds • Size: 2.3"W x 2.8"H x 0.5"Thick

EXTECH  
INSTRUMENTS



SALE

Part No.	Description	1	10
154739CR	Stopwatch w/ alarm	\$17.95	\$16.95
		\$16.10	

See pages 159 - 161 for Batteries.

# Test Leads, Plugs and Binding Posts

Color Code Legend  
New Sale Qty. Save

## Mini-Clip to Banana Test Cables

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire



Part No.	Description	1	10	100
21856CR	Black test cable .....	\$3.95	\$3.55	\$2.99
21864CR	Red test cable .....	3.95	3.49	2.99

## Pomona® Stackable Banana Test Lead Cables



- 5000V @ 15A • 55°C max.
- 159898CR: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation
- 159901CR: Two 24" leads 159919CR: Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898CR	3782-36	Mini w/ banana	\$7.95	\$7.19	\$6.59
159901CR	B-24-02	Patch cord .....	9.95	8.95	7.95
159919CR	B-36-02	Patch cord .....	9.95	8.95	7.95

## Banana-to-Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire



Part No.	Description	1	10	25
77841CR	Test leads .....	\$22.95	\$20.69	\$18.59

## Double-Banana Plug to Alligator Clips Test Cable

- Red & black rubber boot
- 4" lead wire • Length: 3'



Part No.	Description	1	10	50	100
107422CR	Test cable .....	\$3.95	\$3.49	\$2.95	\$2.49

## Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors



Part No.	Description	1	10	100	1000
10444CR	Alligator leads	\$4.39	\$3.95	\$3.56	\$3.20

## BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.

- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector



Part No.	Description	1	10	100	1000
11383CR	BNC cable .....	\$3.49	\$2.49	\$2.25	\$2.05

## Insulated Alligator Clips

- Color-coded • Insulated barrel
- Jaw opening .375"-0.5"
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W



Includes: One red and one black clip

Part No.	Description	1	10	100	1000
70990CR	Alligator clips .....	\$0.39	\$0.36	\$0.33	\$0.30

## 1 1/16" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- Insulating sleeve is threaded to banana plug body
- .1875" lead opening • Size: 1.6"L x 0.4"Dia.



Includes: One red and one black plug

Part No.	Description	1	10	100	1000
72194CR	Banana plugs ...	\$1.59	\$1.49	\$1.25	\$1.09

## 2 1/4" Banana Plugs

- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Each plug equipped with hole for interconnection
- Insulating sleeve fits snugly over copper post
- Size: 2.3"L x 0.3"W • Set-screw connection



Includes: One red and one black connector

Part No.	Description	1	10	100
137525CR	Banana plugs .....	\$2.95	\$2.12	\$1.84

## Pomona® Solderless Banana Plug Sets

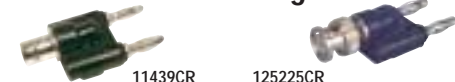


- Nickel-plated • Set screws secure leads
- ABS insulation • 5000VDC @ 15A • 50°C max.
- Color: 1 red and 1 black per set

159863CR: Solderless with safety collar & set screw  
159855CR: Solderless with set screw  
159927CR: Solderless double banana plug w/ wire guide

Part No.	Product No.	1	10	25
159863CR	1825-02 set .....	\$2.65	\$2.50	\$2.38
159855CR	1325-02 set .....	3.29	2.99	2.69
159927CR	MDP-02 set .....	4.69	4.38	4.07

## BNC to Standard Double Banana Plugs



Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439CR	BNC banana plug (F) ....	\$4.95	\$4.49	\$3.99
125225CR	BNC banana plug (M) ....	5.49	4.95	4.45

## Double Banana Plugs

- Dual gold-plated female banana plugs
- Stackable



Part No.	Description	1	10	100
125209CR	Blk banana conn. ....	\$2.65	\$2.39	\$2.15
125217CR	Red banana conn. ....	1.99	1.79	1.61

## 1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut • Solder tab hole: 0.06"Dia.
- Size: 1.0"L x 0.5"Dia.



Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
71239CR	Binding posts (2)	\$0.99	\$0.85	\$0.69	\$0.59

## 1 3/4" Screw/Solder Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mounting
- Solder post: 0.0625"Dia.
- Size: 1.8"L x 0.5"Dia.



Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
77690CR	Binding posts (2)	\$1.09	\$0.95	\$0.79	\$0.69

## Panel Mount Tip Jacks 1/4" – 32 Thread

Mounts in panels ranging in thickness from 0.063" to 0.375".

- Plating: bright tin • Material: brass
- Insulation: polycarbonate • 10 pieces per pack



Part No.	Cross Ref. No.	Color	1	10	100
256778CR	R1-17-BLK	Black ...	\$7.79	\$7.49	\$7.31
263863CR	R1-17-RED	Red .....	7.79	7.49	7.31

## Chassis Mount Banana Jack

- 0.158"
- Molded ABS black plastic body
- Nickel plated steel solder lug and washer



Part No.	Description	1	10	100
291936CR	Black banana jack .....	\$0.67	\$0.52	\$0.48

## Double Binding Posts – Dual Banana

- Red/Black design
- Screw-mount
- 0.72" between posts • Size: 1.6"L x 1.4"W



Part No.	Description	1	10	100
125196CR	Screw mount bind post ..	\$3.95	\$3.45	\$3.19

## Single Binding Post to BNC Male

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

See page 96 for BNC Connectors



Part No.	Description	1	10	100
100600CR	Red binding post .....	\$1.35	\$1.07	\$0.85
100618CR	Black binding post .....	1.35	1.07	.85

## BNC to Double Binding Posts – Dual Banana

- Red/black design



Part No.	Description	1	10	100
125233CR	BNC-female .....	\$4.95	\$4.49	\$4.05
99354CR	BNC-male .....	5.29	4.76	4.28



## Protected Banana Style Multimeter Test Probes

- Threaded/pointed test tip
- 18 AWG wire
- 42" long
- Black and red
- 2 per package

Part No.	Description	1	10	25
77737CR	Protected probes .....	\$6.49	\$5.85	\$5.25

## Standard Banana Style Multimeter Test Probes

- Black and red
- 18 AWG wire
- 42" long
- 2 per package

Part No.	Description	1	10	25
77745CR	Std. banana probes ..	\$7.69	\$6.95	\$6.25

## PROBE MASTER® Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"

174625CR Includes:  
10 plunger type tips

212222CR Includes:  
10 pieces; screw-on  
alligator clips, spade  
lugs and spring hooks

Part No.	Description	1	10	25
174625CR	Micro tip test leads	\$29.85	\$28.35	\$26.95
212222CR	Softie test leads .....	23.85	22.65	21.55

## PROBE MASTER® Probe Kits

- Rating: 1000V 10A
- Gold tips and contacts
- 212231CR: Universal probe kit includes leads with shrouded right angle banana plug, probes, sprung hook probes, alligator clips and spade lugs

212249CR: Electronic deluxe probe kit includes same as P/N 212231, plus extender probes, minigator leads, .025" wire wrap leads, pico hooks and pincer hooks

Part No.	Description	1	10
212231CR	Universal probe kit .....	\$32.85	\$31.19
212249CR	Elect. deluxe probe kit .....	69.85	66.35

## Pomona® Replacement Probe Test Lead Set

- Set of two PVC 48" insulated leads, probe to banana plug
- Fits all DMMs
- Right-angle multimeter connectors

Part No.	Product No.	1	10	25
155951CR	5519A .....	\$12.95	\$11.49	\$10.49

## Breadboard-Pin to Breadboard-Pin Test Leads

- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 AWG wire
- 20 per package

Part No.	Description	1	10	25
77825CR	Breadboard pin leads	\$12.95	\$11.69	\$10.49

## Pomona® Basic Electronic DMM Test Lead Kit

Kit contains 2 each (black/red):

- Test probes with silicone insulated lead
- Slide-on extended tips & alligator clips
- Supplied in a reusable plastic case
- 48" leads
- Fits most equipment with banana jacks

Part No.	Product No.	1	10	25
155942CR	5672A .....	\$20.75	\$19.75	\$19.22

## Universal Test Lead Kit

Includes: 3' black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

Part No.	Description	1	10	100
168516CR	Universal kit .....	\$8.95	\$7.95	\$6.95

## Micro Test Clip

- One piece per package

Part No.	Description	1	10	100	1000
153162CR	1.6" micro test clip	\$0.75	\$0.59	\$0.35	\$0.26

## Mini Test Clips

- Two lengths

Includes: One black and one red hooked probe clip

Part No.	Description	1	10	100
114809CR	1.75" mini test clips	\$1.89	\$1.49	\$1.35
114817CR	3.5" mini test clips .....	1.75	1.55	1.39

## Pomona® Insulation-Piercing Test Clips with Banana Jack

Makes contact with insulated wires without cutting stripping. Pierces insulation on wires from 22 to 14 AWG.

- Op. V/A: 30VAC or 60VDC/1A max.

Part No.	Description	1	10	25
217453CR	Piercing clips .....	\$30.75	\$29.25	\$27.75

## Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298CR	Mini test leads	\$11.49	\$10.39	\$9.29	\$8.39

## Pomona® 11"L Test Lead Holders

- 155985CR: Max cable dia.: 0.450"
- 155977CR: Max cable dia.: 0.320"
- 155969CR: Max cable dia.: 0.210"

Part No.	Prod. No.	Slots	Color	1	10	25
155985CR	2708B	9	Blue .....	\$9.95	\$9.45	\$8.98
155977CR	4408	10	Black .....	9.95	9.45	8.95
155969CR	1508	14	Orange ...	9.95	9.45	8.98

## BNC Female Connector with 20AWG Lead Wires

Solder the 20AWG wires onto your protoboard, plug the BNC female connector on to your test equipment and you have an instant testing board for varied applications.

- BNC female connector
- 7" 20AWG lead wires

Part No.	Mfr. Cross Ref. No.	1	10	100
256831CR	CBB-069 .....	\$4.59	\$4.39	\$4.19

## Pomona® Minigrabber® Test Clip Patch Cord Kits

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads; clips on both ends

Part No.	Prod. No.	Description	1	10
156494CR	5523	Patch cord (hook)	\$34.95	\$31.49
156507CR	5521	SMD cord (jaws) ....	56.75	53.89

## BNC to Clip Test Cables



BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

Part No.	Description	1	10	50	100
11421CR	Micro-clip RG174	\$3.99	\$3.19	\$2.89	\$2.59
11463CR	Mini-clip RG174 ....	4.39	3.99	3.59	3.19

## Pomona® BNC to Minigrabber® Test Clips

- RG 174/U, .100" O.D.
- Rating: 300 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

Part No.	Product No.	1	10
176954CR	5187-K-36 .....	\$21.95	\$19.95

## Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips

- RG 58C/U, .195" O.D.
- Rating: 45 V<sub>RMS</sub> max., +50°C (+122°F) max.
- Jaws open to .187" max.
- Length: 36"

Part No.	Product No.	1	10
176971CR	4532-C-36 .....	\$16.95	\$15.26

## Pomona® BNC Cables

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871CR: 36" P/N 159880CR: 60"

Part No.	Product No.	1	10	25
159871CR	2249-C-36 .....	\$15.95	\$14.39	\$12.95
159880CR	2249-C-60 .....	15.95	15.15	14.39



# Test Leads, Current Meters & Logic Probes

Color Code Legend  
New Sale Qty Save Closeout

## Claw Clips and Alligator Clips



Jameco offers different types of clips for different applications. Claw clips with teeth on three sides of the jaw for a better grip, and screw terminal connections. Steel alligator clips with either solder/crimp connection or barrel/screw connection.

Part No.	Description	Size	2	4	10
248920CR	Mini-alligator clip solder/crimp	1.2"L x 0.3"W	\$.28	\$.25	\$.23
248954CR	Red insulator for 248920CR	—	.18	.16	.14
248946CR	Black insulator for 248920CR	—	.18	.16	.14
256524CR	Alligator clip, barrel/screw	1.9"L x 0.2"W	.45	.38	.35
248938CR	Alligator clip, solder/crimp	1.6"L x 0.3"W	.52	.48	.42
248971CR	Red insulator for 248938CR/256524CR	—	.21	.19	.17
248962CR	Black insulator for 248938CR/256524CR	—	.21	.19	.17
248989CR	Claw clip 10A, screw terminal	2.1"L x 0.4"W	.45	.44	.40
249009CR	Claw clip 20A, screw terminal	2.5"L x 0.5"W	.55	.50	.45
248997CR	Claw clip 30A, screw terminal	2.8"L x 0.6"W	.69	.62	.55

• Prepackaged: order in increments of 2

## Mini DC/AC 2000-Count Clamp Meter/Multimeter

- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Compatible w/ P/N 162325CR, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.
- One-year warranty



ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1.0% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1.2% + 1d
*Frequency Response	40-400Hz	
Zero Adjust	External knob for DCA	

Requires: 9V battery not included (P/N 151095CR, pg 159)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756CR	Mini DC/AC clamp meter ....	\$119.95	\$107.95

## 5-Function 4000-Count Clamp Meter/Multimeter

- 4000-count display with bar graph
- Resolution: 0.1mV maximum
- DC/AC voltage range: 600V
- AC current range: 400A
- Resistance range: 400Ω
- Auto off
- Continuity test
- 1.0" max conductor size
- Compatible with P/N 162325CR AC line separator, below
- Size: 11.4"L x 6.6"W x 2.1"D
- One-year warranty



Part No.	Model No.	1	10
192583CR	AC40A	\$78.95	\$74.99

## 17MHz Logic Probe

- Max input freq.: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: Lo = 0.8V ±0.2V, Hi = 2.3V ±0.2V
- CMOS threshold: Lo = 30% VCC, Hi = 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H



Part No.	Description	1	10	25
149930CR	Logic probe .....	\$29.95	\$26.99	\$24.29

## Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10μs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H



SALE

Part No.	Description	1	10	25
24601CR	Logic pulser .....	\$18.95	\$17.06	\$15.35

## Deluxe Electronic Test Lead Kit

- One pair (red & black) of:
- One meter long test lead with a right-angle banana connector on one end
  - Insulated probe tip extender



- Modular test probe with banana connector in handle
- Modular hook-style clip test lead with banana connector
- Modular pinch-style clip test lead with banana connector
- Insulated alligator clip
- Modular alligator clip with banana connector
- Slide-on IC probe tip adapter and test lead couplers
- Bare spade lug with banana connector

Part No.	Product No.	1	5
222463CR	TL81A	\$98.95	\$93.95



## 15A AC Line Separator for AC Current Clamp Meters

- Max. overload: 250VAC@15A
- X1 and X10 clamp areas
- Socket compatible with US & European connectors
- Convenient 0.1" Dia. tip test points for neutral/earth/line
- Size: 6.0"L x 1.9"W x 1.4"T
- One-year warranty



Part No.	Description	1	10	25
162325CR	3-prong US-type plug ...	\$10.95	\$9.95	\$8.95

## 50mV/50A Current Shunt

- Current ranges: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A
- Size: 5.3"L x 1.2"W x 1.4"H



Part No.	Description	1	10	25
162309CR	Current shunt .....	\$24.95	\$22.49	\$19.95

## Jameco Special Values!

Sale items highlighted in yellow.

Great quantity discounts highlighted in green.



Detailed specifications for Test Equipment at [www.Jameco.com](http://www.Jameco.com).

## Current Sensing Transformers

### Class 1 Current Transformer

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC
- Frequency: 50-60Hz
- Size: 3.0"L x 3.2"W x 1.6"T
- Weight: 1.1 lbs.

Includes: Mounting bracket and hardware

SALE



Part No.	Mfr. Cross Ref. No.	Power	Ratio	1	10	100
174887CR	MSQ30	5VA	200A/5A: 5VA	\$4.49	\$4.04	\$3.64

### Current Sensing Transformer

- Inductance: 5mH
- Turns: 60
- Sensitivity current (I<sub>n</sub>): 1A
- Max. current: 300mA
- Freq. range: 10-50 kHz
- Sensitivity voltage (V<sub>out</sub>): 1V
- Terminating resistor: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T



Part No.	Mfr. Cross Ref. No.	1	10	100
164718CR	MTC30101	\$2.15	\$1.95	\$1.75

## RS-232 Mini-Tester with Status LEDs

Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.



Part No.	Description	1	10	100
26729CR	Mini-tester	\$11.95	\$10.76	\$9.68

## Miniature RS-232 Breakout Box for Quick Design Changes

Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.



Includes: 25 each 22 AWG wire jumpers and machine tool sockets

Part No.	Description	1	10	100
11181CR	Breakout box	\$8.95	\$7.95	\$6.95

## RS-232 Loopback Tester

The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20, and 15 to 17. Connectors: male to female DB25.



Part No.	Description	1	10	100
22728CR	Loopback tester	\$6.95	\$5.95	\$4.45

## RS-232 Line Status Tester

Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19, and 20. Connectors: male to female DB25.



Part No.	Description	1	10	100
14285CR	Check line tester	\$8.95	\$8.09	\$7.25

## RS-232 Signal Adapter/Splitter

- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts



Part No.	Description	1	10	100
105195CR	Tri-port serial adapter	\$7.95	\$6.95	\$5.95

## Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20, and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

• Cable length: 4' • Size: 3.5"L x 3.3"W x 1.0"H  
Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945CR	Tester/breakout box	\$22.95	\$19.95	\$17.95

## Paladin

## PC Cable-Check™ Tester

Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11, and RJ45 telephone plugs. A separate section to check USB-A to USB-B cables, as well as a separate section to check female BNC to female BNC cables.

Part No.	Description	1	10
123916CR	PC cable-check™ (battery and manual included)	\$169.95	\$152.95



## Heat Guns and Power Tools

### 1000-Watt Heat Gun

- Dual heat setting: 600°F/1100°F
- Works with spot dry paints, plaster, spackle, and cure adhesives
- Use with heat-shrink material
- Thaw pipes, frozen locks, and loosen rusted bolts
- Input voltage: 110-120 VAC



Part No.	Description	1	6	12
254924CR	Heat gun	\$42.55	\$41.10	\$36.85

### Heat Gun/Stripper

#### Dual-Setting



- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W



Part No.	Description	1	10	25
76865CR	Heat gun	\$39.95	\$35.95	\$31.95
217816CR	Heat shrink attachment	1.95	1.85	1.75
217832CR	Air spreader	1.95	1.85	1.75

## Weller®

### 250-Watt, 3-Setting Industrial Heat Gun

- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- 120VAC @ 60Hz • ESD safe
- Long-life heater and fan components
- 3-wire grounded plug; 6' cord



Part No.	Product No.	Wt. (lbs.)	1	10
191943CR	6966C	1.2	\$119.95	\$107.95

### WAHL® 1,200°F Portable Heat Gun

- Portable and flameless heat
- Temperatures up to 1,200°F (650°C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W • One-year warranty

ETL listed



Part No.	Description	1	10
150691CR	Portable flameless heat gun	\$26.49	\$24.95

### Powerful Cordless Screwdriver Set

This 4.8 Volt rechargeable cordless screwdriver features a 180 RPM motor that produces 40 in.-lb. of torque for starting and finishing screws. Comes with 2 magnetic bit holders, 11-piece bit set (5 slotted, 3 Phillips, 3 torque), and power supply at no extra cost.

- Narrow nose for extended reach in tight places
- Construction grade quality
- Recharges in 7 to 9 hours
- Size: 10.5" long
- Weight: 1.4 lbs.



Part No.	Description	1	5
211254CR	Cordless screwdriver	\$15.95	\$14.36

### Adjustable Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180 RPM
- Clutch operating torque from 4 to 21kg-cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia. • Weight: 1.6 lbs.



Includes: 6VDC @ 300mA power supply and screwdriver bits, slotted and Phillips

Part No.	Description	1	10
176680CR	Cordless screwdriver	\$36.95	\$33.26

### Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



Part No.	Description	Wt. (lbs.)	1	10	25
26702CR	MS398 drill	0.8	\$29.95	\$26.95	\$23.95
26711CR	MS399 stand	1.8	\$19.95	\$17.95	\$15.95

See page 77 for  
Heat Shrink Tubing.



## 30-Day Money-Back Guarantee

Details on page 239.



## 60-Piece Bit, 1/4" Socket and Driver Tool Kit

This compact kit contains the most popular bits and 1/4" sockets with a comfortable cushioned, reversible ratchet driver handle.



**SALE**

- Drill bits: 1/16", 3/32", 1/8", 5/32", 3/16"
- Socket bits: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2", 5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm
- Phillips bits: #1, #2, #3 • Phillips Z bits: 1, 2, 3
- Slotted bits: 1/8", 5/32", 3/16", 1/4", 9/32"
- Hex bits: 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
- Torque bits: T-10, T-15, T-20, T-25, T-30, T-40
- Square bits: 1, 2, 3 • 2.4" Magnetic bit adapter
- Reversible ratchet screwdriver
- 7.5" Flexible extension • Socket adapter
- 6" long nose pliers • 6" adjustable wrench
- Vinyl zipper case with organizer to find sizes fast
- Size: 8.5"L x 6.5"W x 2.2"H • Weight: 3.1 lbs.

Part No.	Description	1	5
218261CR	60-piece tool kit .....	\$33.95	\$30.56

## 30-Pc 1/4" Bit Set with Organizer

A 30-piece bit set supplied in a neat, compact storage drum organizer allows quick access, identification, and selection of the desired bit. All the bits are compatible with power tools, rechargeable drills, and multi-bit screwdriver handles.



Set includes:

- Nut bits: 7/16", 3/8", 11/32", 5/16", 9/32", 1/4", 3/16"
- Hex bits: 3/16", 1/8", 7/64", 5/64"
- Torx bits: T10, T15, T20, T25, T30
- Phillips bits: #0, #1, #2, #3
- Slotted bits: #3, #4, #5, #6, #7 • Pozi bits: #1, #2, #3
- 1 bit holder • 2 screw aligners

**SALE**

Part No.	Description	1	5
227230CR	30-piece 1/4" bit w/ organizer ....	\$6.59	\$5.95

## 32-Piece Security Bit Set

This security bit set contains most of the bits commonly used in today's electronic products to make them tamper resistant. Now you can open the cases of these products to repair them without damaging the case or screw.



**Includes:** Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver

Part No.	Description	1	10
223829CR	32-piece security bit set .....	\$11.95	\$10.75

Sale items highlighted in yellow.

**Jameco's Special Value!**

Great quantity discounts highlighted in green.

For detailed dimensions, please visit our website at [www.Jameco.com](http://www.Jameco.com)

## Variable High-Speed Rotary Tool Kit

A multiple high-speed rotary tool kit with 6-speed selections ranging from 8,000 to 30,000 RPM, along with 40 bits and accessories, provides you all the power and precision you need to tackle almost any cutting, drilling, polishing, sanding or engraving job. With its high-speed output, plus a nylon body, you can grasp the tool lightly to perform fast rough work or delicate craftsmanship. A convenient shaft-lock button provides fast-and-easy accessory bit changing.

- 9" long variable-speed rotary tool
- Drum sander wheel • 3 drum sander pads
- 2 felt buffing pads • Disk sanding arbor
- 6 disk sanding pads • 7 disk grinders
- 10 rotary grinders • Grinder dressing stone • 4 rotary files • 2 drill bits • Wrench
- One-year manufacturer's warranty



**SALE**

Part No.	Description	Case Dimensions	Wt. (lbs.)	1	5
211289CR	High-speed rotary tool kit	12.0"W x 7.0"D x 3.5"H	3.3	<del>\$44.95</del>	\$42.69 \$40.57

## 7-Piece Grinding/Polishing Set

- Aluminum oxide cylindrical stone
- Aluminum oxide blunt nose stone
- Cylindrical cotton
- Bullet head cotton
- Cylindrical cork



**SALE**

Part No.	Description	1	5
226667CR	7-pc. grinding stone set .....	\$12.29	\$11.85

## 50-Piece Cut-Off Wheel Set

- 4 alum. carbide cut-off wheels, 7/8"Dia.
- 18 aluminum carbide cut-off metal wheels, 15/16"Dia.
- 6 aluminum carbide cut-off wood wheels, 15/16"Dia.
- 18 aluminum carbide cut-off wheels, 1.0"Dia.
- 4 aluminum carbide cut-off wheels, 1 1/4"Dia.



**SALE**

Part No.	Description	1	5
226608CR	50-pc. cut-off wheel set .....	<del>\$24.49</del> \$23.25	\$22.09

## 12-Piece Deluxe Hole Saw Kit

Cut smooth, accurate holes from 3/4" to 5" diameter in drywall, wood, plaster, aluminum, laminates, and plastic. With the 1/4" and 3/8" mandrels you can use it with any battery or electric drill.

- Hole saw diameters: 3/4", 7/8", 1 1/8", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/2", 3", 3 1/2", 4", 5"
- 1/4" & 3/8" drive mandrels • Allen wrench
- Size: 8.0"L x 6.0"W x 1.9"H • Weight: 2.8 lbs.



Part No.	Description	1	10
211262CR	Hole saw kit .....	\$18.95	\$17.45

## 9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .125"
- Shank diameter: .125"
- Each kit will vary in contents of bit sizes



Part No.	Description	1	10	50
131676CR	9-piece drill bit kit .....	\$9.95	\$8.95	\$7.95

## 6-Piece Rotary Brush Set



**SALE**

- Bristle brushes • Copper brushes • Steel brushes

Part No.	Description	1	5
226641CR	6-pc. rotary brush set .....	\$15.15	\$14.39

## 7-Piece Engraving Cutter Set

- Ball tips
- Flat cut
- Arrow head, v-cut
- Bullet tip, round cut
- Fine point, v-cut
- Flat head

**SALE**



Part No.	Description	1	5
226624CR	7-pc. engraving cutter set ..	\$16.99	\$16.19

## High-Speed Steel Step Drill Bits

Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick.

- 229657CR: • Shank size: 3/8" • 2.4" long
- 172401CR: • Shank size: 1/4" • 2.5" long

Part No.	Description	1	10	25
229657CR	3/16" - 7/8" 13-step	\$14.95	\$13.45	\$12.10
172401CR	3/16" - 1/2" 6-step	9.95	8.95	7.95

## PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Shank diameter: .125"
- Use for drilling holes in glass PC boards



Part No.	Drill Dia.	No. Application	1	10	100
16619CR	.021"	75 Miscellaneous	<del>\$1.55</del> \$1.32	<del>\$1.32</del> \$1.12	<del>\$1.12</del> \$0.99
16580CR	.040"	59 Plated thru holes	1.75	1.49	1.12



## 17-Piece Offset Ratchet and Socket Driver Set **SALE**

This offset ratchet and socket driver set includes 6 hexagon sockets made from quality hardened carbon steel. The handle features a 1/4" male head drive to accommodate the accompanying bits & sockets.

- Phillips bits: #1 and #2
- Torx bits: T10, T15 & T20
- Hex sockets: 3/16", 7/32", 1/4", 5/16", 11/32" & 3/8"
- Reversible driver handle with 1/4" male head
- Pozi bits: #1 and #2
- Slotted bits: 4, 5 & 6mm

Part No.	Description	1	5
226069CR	Offset ratchet & socket	\$5.95	\$5.36

## Flexible Ratchet Driver Set **SALE**

With the mini-ratcheting handle and 7.5" flexible shaft, you can loosen or tighten those hard-to-reach screws.

**Includes:** Flexible shaft (190mm), mini ratchet handle that has forward, reverse and conventional settings, slotted bits (4mm, 5mm & 6mm), Phillips (#1 & #2 bits), Pozi (#1 & #2 bits), and Torx (10, 15 & 20mm bits)

Part No.	Description	1	5
223802CR	Ratchet drivers set	<del>\$9.95</del> \$6.25	\$5.68

## Twin Wrench Driver Set

The handle of this twin wrench driver set has two tips, horizontal and vertical for those hard-to-reach areas.

- Non-slip double ended driver
- Three slotted bits: 4mm, 5mm, and 6mm
- Philips bits: #1 and #2
- Torx bits: 10mm, 15mm, and 20mm
- Pozi bits: #1 and #2

Part No.	Description	1	10
223811CR	Twin wrench driver set	\$4.65	\$3.99

## 29-Piece 1/4" Driver Socket Wrench Set **SALE**

- Flank driver socket (6 pt): 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12 and 13mm
- Slotted bit: 4, 5.5 & 7mm
- Hex bit: 3, 4, 5, 6 & 8mm
- Phillips bits: #1 and #2
- Pozi bits: #1 and #2
- 2" extension bar
- Sliding T bar
- Universal joint
- Extension bar with spinner handle
- Pear-type ratchet handle with quick release
- Size: 8.7"L x 4.3"W x 1.6"H
- Weight: 1.8 lbs.

Part No.	Description	1	5
226229CR	1/4" driver socket	\$27.95	\$25.16

## 25-Piece Screwdriver Grab Bag

25 assorted sizes and types of screwdrivers in a box. Types may include slotted, Phillips, Torx or star.

Part No.	Description	1	10
235070CR	Assorted screwdrivers	\$15.99	\$14.99

## Xcelite® Allen® Hex Socket-Type Screwdriver Set

- Inch sizes
  - Clear plastic case
- Kit includes:** Regular handle, extension bar, .05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16" blades

Part No.	Description	1	5
217912CR	11-piece screwdriver set	\$35.49	\$32.29

## Xcelite® 9-Piece Screwdriver Set

- Handles more jobs with fewer tools, saves bench space and lightens service kits
- Equipped with remarkable black, "piggyback" torque amplifier handle
- Color coded handles
- Clear plastic case
- Inch sizes

**Kit includes:** Green 3/32", red 1/8", black 5/32", orange 3/16", amber 1/4", blue #0 Phillips, brown #1 Phillips, amber #2 Phillips, and black torque amplifier handle

Part No.	Product No.	Description	1	10
218069CR	PS88	9-piece set	\$21.65	\$19.69

## 6-Pc Long-Neck Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L, 0.12"Dia. x 6.6"L, 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

Part No.	Description	1	10	50
99451CR	6-pc. screwdriver set	\$8.95	\$8.06	\$7.25

## JAMECO Pocket Screwdriver

**Phillips & Flat head**

- Size: 6"L
- Pen clip for pocket storage

Part No.	Description	1	10	100
127271CR	Pocket screwdriver	\$1.55	\$1.45	\$1.19

## 33-Piece Ratchet Driver Set

High torque reversible ratchet handle with forward, reverse, and conventional settings. Magnetic shaft holds steel screws to bit for easy positioning. Bits can easily be stored in handle for easy transport.

- Torx bits: T6, T7, T8, T9, T10, T15 and T20
- Nut bits: 3/16", 1/4", 9/32", 5/16", 11/32" and 7/16"
- Hex bits: 1.5, 2.0, 2.5, 3, 4, 5, 6 and 8mm
- Pozi bits: #0, #1, #2
- Phillips bits: #0, #1, #2
- Slotted bits: 3, 4.7 and 6.3mm
- Size: 9.1"W x 2.0"D x 7.6"H
- Weight: 1.7 lbs.
- 50mm adapter

Part No.	Description	1	5
226051CR	33-piece ratchet driver set	<del>\$27.95</del> \$16.09	\$14.64

## 11-Pc Precision Screwdriver Set

- 0.9, 1.2, 1.4, 1.8, 2.4 and 3mm slotted screwdrivers
- Phillips #00, #0 and #1 screwdrivers
- Awl
- Magnetic pick-up

Part No.	Description	1	5
226093CR	Precision screwdriver	\$4.49	\$4.29

## 7-Piece Insulated Screwdriver Set

- Tapered handle for sure grip
- Precision ground shank
- Hardened, magnetic tips

**Includes:** 0.4/0.8/1.0/1.2mm slotted; #0/1/2 Phillips

Part No.	Description	1	5
261999CR	Screwdriver set	\$19.25	\$17.59

## 6-Pc Precision Torx Screwdriver Set

- T5 and T6 x 50mm Torx screwdrivers
- T7, T8, T9, T19 x 50mm Torx hex screwdrivers

Part No.	Description	1	5
226106CR	Precision TORX screwdriver	\$12.95	\$12.29

## 6-Pc Precision Screwdriver Sets

**34041CR includes:** 3/64", 1/16", 5/64", 5/32", 1/8" & 9/64" slotted screwdrivers

**34059CR includes:** 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

Part No.	Description	1	10	50
34041CR	Slotted set	\$3.59	\$3.23	\$2.91
34059CR	Phillips set	3.59	3.23	2.91

## 6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers

• 2 long-neck slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L

• 2 long-neck Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

Part No.	Description	1	10	50
99565CR	Screwdriver/pliers	\$13.49	\$11.49	\$8.59

## 7-Piece Nut Driver Sets

- Premium hardened steel sockets
- Large colored handles

**261850CR: Metric** 5mm, 6mm, 7mm, 8mm, 9mm, 10mm & 11mm

**261841CR: SAE** 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

Part No.	Description	1	5
261850CR	Metric nut driver set	\$8.99	\$8.65
261841CR	SAE nut driver set	9.89	9.49

**Corporate Customers**

Open an account is easy!!  
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## Xcelite® Needle Nose Pliers



- 217891CR (submini needle nose): Serrated jaws  
• Positive gripping of fine wire or subminiature components  
• Fine point allows use in confined areas  
217963CR: Fine serrated jaws • General purpose  
217998CR: Smooth jaws  
• General purpose for pick-up and wire forming

Part No.	Prod. No.	Description	1	10
217891CR	L4	4" mini needle nose.....	\$14.95	\$13.69
217963CR	LN55	5.5" thin long nose.....	\$14.95	\$12.30
217998CR	LN54G	5" thin long nose .....	14.95	13.46

## Xcelite® 6-Piece Pliers Kit

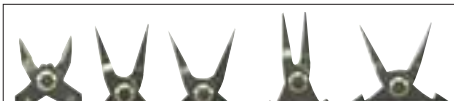
- Durable pocket-pouch with heavy-duty snaps

Kit includes: 4.5" transverse end-cutting pliers, 4" diagonal-cutting pliers, 5" long-nose pliers with side cutters, 5" fine-tip needle nose pliers, 5" flat-nose pliers, and 5" long-nose pliers



Part No.	Prod. No.	Description	1	5
218051CR	C1K	6-piece pliers kit.....	\$99.95	\$83.59

## Precision 5-Piece Stainless Steel Pliers Set



- Spring return  
• Insulated handles

Includes:  
One 3.5"L micro cutting nippers and one each  
4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

Part No.	Description	Wt. (lbs.)	1	10	25
73120CR	5-piece set	0.6 ...	\$17.95	\$16.16	\$14.54

## Half-Round Long Nose Pliers

- Drop forged steel • Heat treated  
• Spring return action • Vinyl grips  
• Length: 4.5" • Knurled jaws

Part No.	Description	1	10	50	100
177607CR	Half-round pliers	\$4.95	\$4.49	\$3.95	\$3.59

## 5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for precise circuit board work. Spring loaded.

Part No.	Description	1	5
261809CR	Cutting pliers .....	\$4.99	\$4.55

## 5.3" Flat and Half-Round Long Nose Pliers

- Stainless steel • Spring return  
• Durable rubber handles  
• 5.3" length w/ 1.4" plier nose 35473CR  
35473CR/35490CR: Knurl jaws  
195531CR: Smooth jaws



Part No.	Description	1	10	50	100
35473CR	Flat long nose	\$5.49	\$4.99	\$4.49	\$3.49
195531CR	Flat long nose .....	4.95	4.49	3.95	3.49
35490CR	Half round .....	5.49	4.99	4.49	3.49

## 5-Piece Pliers Set

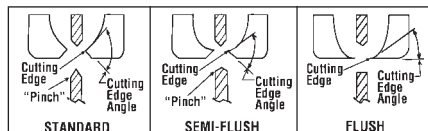
- Precision machined heat-treated jaws  
• Vinyl insulated handles

Includes: 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers



Part No.	Description	1	5
261905CR	Pliers set .....	\$9.75	\$9.25

## Xcelite® Diagonal Cutters



Choose the finished cut best for your projects



Manufactured from the finest forged alloy steel with polished head and cushion comfort handles.

- Flush or semi-flush cutting edge  
• Cutting edges machine ground and electronically hardened for extended life  
• Forged alloy steel w/ polished head  
• Handle coil springs for fast cutting action  
• ESD safe cushion grips for maximum comfort

Part No.	Prod. No.	Description	1	10
217921CR	MS54J	4" oval head-flush .....	\$15.95	\$14.36
217955CR	S475JS	4" relieved head-flush ...	14.95	13.46
217904CR	MS549J	4" tapered head-flush ...	14.95	13.46
217867CR	MS545J	4" slim line tapered head-flush	14.95	13.46

## Cutting Pliers

### Flush Cut

- Stainless steel  
• Side cutting flush cut  
• Leaf spring for smooth controlled action

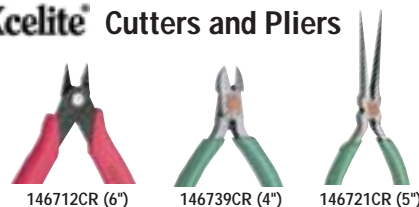


Part No.	Description	1	5
261788CR	Cutting pliers .....	\$6.95	\$6.55

**We'll Send It Today!**

Just place your order by 6PM EST for same business day shipment.

## Xcelite® Cutters and Pliers



- Spring returns  
146712CR: Micro series wire cutter – flush; 6"  
146739CR: Diag. wire cutter – semi-flush; 4"  
146721CR: Long needle nose pliers – flat; 5"

Part No.	Product No.	1	10	50	100
146712CR	170M .....	\$5.75	\$5.19	\$4.69	\$4.19
146739CR	MS54V .....	13.95	12.95	11.95	10.95
146721CR	MM7776V .....	16.95	15.95	14.95	13.95

## Xcelite® Shearcutter/Pliers Set

- Improved handle grip for control and comfort  
• Non-glare black finish carbon steel  
• Size (plier): 5.6"L  
• Size (shearcutter): 5.2"L



Part No.	Product No.	1	10	25
152055CR	S2K .....	\$15.95	\$14.95	\$13.95

## 4" Diagonal Wire Cutter

- Drop forged steel  
• Heat treated  
• Vinyl grips  
• Spring return action  
• Polished head  
• Length: 4"



Part No.	Description	1	10	50	100
179901CR	Wire cutter .....	\$5.49	\$4.94	\$4.45	\$4.00

## 4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick  
• Stainless steel  
• Durable rubber handles  
• Jaws are designed for flush cutting  
• 4.3"L x 2.1"W with 0.5" cutting blade



Part No.	Description	1	10	50	100
35481CR	Wire cutter .....	\$5.59	\$4.99	\$4.55	\$3.99

## 5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire  
• Insulated handles  
• Jaws are designed for flush cutting  
• 5.0"L x 1.8"W w/ 0.5" cutting blade



Part No.	Mfr. Cross Ref. No.	1	10	25
161411CR	Wire cutter .....	\$7.49	\$6.74	\$6.07

## Heavy Duty Tubing Cutter

- Clever design eliminates spiraling, resulting in straight clean cuts with no burrs  
• Cuts copper, brass, aluminum tubing and thin-wall conduit up to 1-1/8" diameter • Fold-away reamer  
• Extra cutter wheel stored in body  
• Lightweight aluminum body and knob  
• Telescopic wheel-feeding mechanism keeps turning radius constant • Length: 4.8"

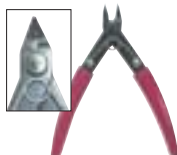


Part No.	Description	1	5
227475CR	Tubing cutter .....	\$19.95	\$17.95



## 5" Wire Cutter/Stripper

- Strips and cuts 20-24 AWG wires
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 5.0"L x 3.0"W



Part No.	Product No.	1	10	50	100
159273CR	HT109	\$5.49	\$4.94	\$4.45	\$4.00

## 5" Wire Cutter/Strippers

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Size: 5.0"L x 3.0"W
- One-year warranty

78991CR: 10-30 AWG

(screw adjustable)

215888CR: 10-24 AWG

(dial to adjust for wire gauge)



Part No.	Mfr. Cross Ref. No.	1	10	50	100
78991CR	HT108	\$3.95	\$3.49	\$2.95	\$2.59
215888CR	JE-2022C	3.95	3.49	2.95	2.59

## 6" Wire Cutter/Strippers

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226CR: Premium T-5

- 10-18 AWG solid
- Color: yellow

161234CR: Premium T-6

- 16-26 AWG stranded
- Color: red

161218CR: Standard T-6

- 16-26 AWG stranded
- Color: red



Part No.	Prod. No.	Description	1	10
161226CR	ID45-215	T-5 10-18 AWG ...	\$16.75	\$15.91
161234CR	ID45-216	T-6 16-26 AWG .....	17.79	16.91
161218CR	ID45-121	T-6 16-26 AWG .....	13.59	12.95

## 6.6" Wire Stripper

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W



Part No.	Product No.	1	10	50
159290CR	HT5023	\$9.95	\$8.96	\$8.06

## 7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W



Part No.	Prod. No.	Description	1	10	50
18796CR	HT104	10-18AWG .....	\$4.95	\$4.49	\$3.95
127861CR	HT1042	16-26AWG .....	5.49	4.94	4.45
127870CR	HT1043	22-30AWG .....	5.49	4.94	4.45

See page 89 for **NEW** Molex Hand Crimp Tool and Extraction Tool.

## Automatic Wire Strippers

175097CR: Spring load grip

- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

202841CR:

- Size: 6.5"L x 3.0"W
- Weight: 0.3 lbs.

237219CR:

- Size: 5.2"L x 2.7"W • Weight: 0.2 lbs.



Part No.	Description	1	10	25
175097CR	Strips 8-22 AWG .....	\$16.95	\$15.26	\$13.73
202841CR	Strips 3-24 AWG .....	12.45	11.19	9.95
237219CR	Strips 14-24 AWG .....	9.95	8.95	8.09

## Rotary Coax Cable Strippers

2 and 3 Blade

159118CR (3 Blade):

2 settings RG58/59/62

- For cable sizes 4-10mm

• Size: 4.2"L x 1.3"W

• Color: black

159185CR (2 Blade):

4 settings RG58/59/62/174

- For cable sizes 4-12mm

• Size: 3.9"L x 0.7"W • Color: gray

Includes: Hex key wrench for adjusting blade



Part No.	Product No.	1	10	25
159118CR	HT312B (3 blade) .....	\$13.95	\$12.56	\$11.30
159185CR	HT332D (2 blade) .....	13.95	12.56	11.30

## Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W • Weight: 0.8 lbs.



Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174684CR	TTK071	<del>\$29.95</del> \$26.95	\$24.26

## Telemaster Modular Connector Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high quality connections
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.

Includes: Cut and strip blade



Part No.	Product No.	1	10
161091CR	ID30-496	\$39.95	\$35.99

## Ratchet Crimp Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade



Part No.	Mfr. Cross Ref. No.	1	10
174676CR	TTK070	\$39.95	\$35.99

## Professional Modular Connector Crimping Tool

- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C
- Insulated handles • Size: 8.2"L • Weight: 1.2 lbs.



Part No.	Product No.	1	10	25
181147CR	HT200	\$54.95	\$49.49	\$44.55

## Modular Connector Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C



Part No.	Product No.	1	10	25
73496CR	HT2000B	\$74.95	\$67.49	\$60.75

## Metal Modular Connector Crimping Tool

- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)



Part No.	Description	1	10	25
114526CR	RJ11/RJ45	\$24.95	\$22.49	\$20.25

## Ratcheted Modular Connector Crimping Tool

- Insulated grip
- Ratcheted type
- Metal • 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) • Weight: 0.7 lbs.



Part No.	Description	1	10	25
159311CR	RJ45/11/12	\$21.95	\$19.95	\$17.95

## Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- Hex sizes: 0.043", 0.068", 0.100", 0.137", 0.213", 0.255"
- Size: 8.5"L x 2.5"W
- All steel construction
- Weight: 1.1 lbs.



Part No.	Product No.	1	10	25
114534CR	HT-336G	\$23.95	\$21.59	\$19.45

Happen to find a like product at a lower print-advertised price? We'll beat that price by 10%!

**Jameco's Low-Price Guarantee**

It's that simple!



## Hex Crimp Tools

- Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule

**261745CR:** 1.7mm standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule  
**261737CR:** Ferrules up to 1/2"



Part No.	Description	1	5
261745CR	Hex crimp tool (3/8")	\$19.75	\$18.55
261737CR	Hex crimp tool (1/2")	19.49	18.29

## Compression Multi-Tool

Designed to compress ferrules of "F"/BNC/RCA connectors. Black oxide steel frame w/ interchangeable die sockets, ratchet mechanism w/ manual release releases after a complete cycle securing a fully compressed ferrule. Integrated coax cutter for cutting cables to appropriate lengths.



Part No.	Description	1	5
261761CR	Compression multi-tool	\$35.65	\$33.85

## "F" Connector Compression Tool

Compresses RG-6 and RG-59 Snap-N-Seal type connectors.

- Length: 5"



Part No.	Description	1	5
261753CR	Compression tool	\$29.95	\$28.45

## 8-Piece Fold-Up Torx Key Set

- 3.7" long handle
- Torx bits: T9, T10, T15, T20, T25, T27, T30, T40
- Size: 3.7"L x 1.2"W



Part No.	Description	1	10	100
176006CR	Torx key set	\$11.49	\$10.49	\$9.44

## 25-Piece Hex Key Set

- 12-piece SAE long arm with sizes from 1/16" to 3/8"
- 13-piece Metric short arm with sizes from 1.5mm to 1cm



Part No.	Description	1	5
261825CR	Hex key set	\$6.95	\$6.59

## Rivet Tool

Sets 3/32", 1/8", 5/32" & 3/16" rivets without adjustments. Simply change the appropriate nozzle, slip the rivet into the pre-drilled hole, and you have a perfect fasten. Spring-loaded handle for automatic ejection of the mandrel.



Part No.	Description	1	5
226114CR	Rivet tool	\$5.95	\$5.36
226288CR	1/8" x 1/4" long rivet (100 pk)	2.19	1.99
226296CR	3/16" x 1/4" long rivet (100 pk)	3.49	3.29

## 1/4-Watt & 1/2-Watt Resistor Lead Forming Tool

- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- Lead spacing: 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"
- Size: 5.4"L x 1.5"W



Part No.	Description	1	10	50
106884CR	1/4W & 1/2W	\$2.99	\$2.79	\$2.65

See page 89 for Molex Hand Crimp Tool.

## 9-in-1 Pocket Multi-Tool

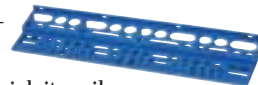
- Bottle opener
- Metal file
- Flashlight
- Knife blade
- Nail pick
- Wire cutter
- 2 handyman/long-nose pliers
- Phillips screwdriver
- Folded size: 2.75"L



Part No.	Description	1	5
227264CR	9-in-1 pocket multi-tool	\$6.29	\$5.65

## Multi-Tool Storage Rack

Organize and store 106 of the most common tools in 24" of wall space. Made of durable plastic material, it easily mounts on a wall with the included screws.



Part No.	Description	1	4	8
239353CR	Storage rack	\$5.99	\$5.49	\$4.99

## Heavy Duty Staple Guns

The standard stapler is perfect for contractors, home do-it-yourselfers, and specialty trade applications. We also offer the cable tackers that are ideal for a wide variety of applications such as telephone wire, cable TV, hi-fi systems, alarm systems, intercommunications and general electrical contract work. Both are made of durable nickel-plated steel for heavy-duty use. Rubber grip assures comfortable operation.



- Handle locking
- Easy rear loading
- Adjustable high impact tension knob
- Hand stop for safe stapling control
- Visual reload window & rear loading

### 227969CR: T-50 Staple Gun

- Handles 5/16", 3/8", 1/2", & 9/16" staples
- Use T-50 type staples, below

### 242878CR: Cable Tacker Gun

- 4.8mm maximum cable diameter, 1/4" width
- Use P/Ns 244988CR & 245008CR tackers, below

### 242886CR: 4-in-1 Staple/Tacker/Nail Gun

- Handles T-50 staples; T-25 cable tackers; 14mm long pin nails; 12-14mm long brad nails

Part No.	Description	1	5
227969CR	T-50 staple gun	\$19.95	\$17.95
242878CR	Cable tacker gun	24.95	22.45
242886CR	4-in-1 staple/tacker gun	28.95	25.95

## Staples

Part No.	Description	1	5
230295CR	T-50, 5/16" staples, 1250 ea. ...	\$2.45	\$2.35
230308CR	T-50, 3/8" staples, 1250 ea. ....	2.75	2.65
230316CR	T-50, 1/2" staples, 1250 ea. ....	2.89	2.79
230324CR	T-50, 9/16" staples, 1250 ea. ....	3.15	3.05
244988CR	3/8"L tackers, 1000 ea. ....	1.69	1.59
245008CR	9/16"L tackers, 1000 ea. ....	1.89	1.79
245016CR	T-25, 1/2"L tackers, 1000 ea. ....	1.89	1.79
245032CR	T-25, 9/16"L tackers, 1000 ea. ...	2.25	2.15

## 5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions



Part No.	Mfr. Cross Ref. No.	Description	1	10	50
115107CR	HEMO1	Straight	\$3.49	\$3.14	\$2.83
115115CR	HEMO2	Curved	3.95	3.56	3.20

## Solderless Terminal Crimping Tool

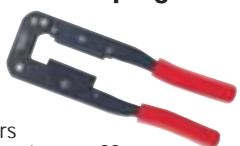
- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W



Part No.	Product No.	1	10	25
72995CR	HT303	\$18.95	\$17.06	\$15.35

## IDC Connector Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 93
- Size: 9.2"L x 3.0"W • Weight: 1.1 lbs.



Part No.	Product No.	1	10	25
73251CR	HT214	\$15.95	\$14.39	\$12.95

## Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG

- Heavy-duty metal tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W



Part No.	Product No.	1	10	25	100
99442CR	HT202A	\$9.49	\$8.55	\$7.69	\$6.95

## D-Sub Crimping Tool

20-28 AWG

- Crimps D-sub pins and sockets
- For use w/ P/Ns 43377CR, 43369CR, pg 83 & 100765CR, pg 92
- Size: 7.0"L x 4.0"W



Part No.	Product No.	1	10	25
159265CR	HT213	\$10.95	\$9.89	\$8.89

## Nibbling Tool

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required
- Size: 7.8"L



Part No.	Prod. No.	Description	1	10	25
18809CR	HT204	Nibbling tool ...	\$7.95	\$7.16	\$6.44
29330CR	HT204B	Replcmnt bit	4.49	4.04	3.64

## 3-Piece Open-End Ratcheting Wrench Set

The Alden Wrench needs only 30° of pivot angle, rather than 60° required by other open-end wrenches. With the built-in ratchet, you need not even remove the wrench from the head of the bolt or nut. Coupled with its small head sizes and ratcheting action, you can loosen or tighten a bolt faster and in tighter spaces. It is made of stainless steel and is individually hand polished.

- SAE 3/8-7/8, 1/2-9/16, 5/8-11/16

Part No.	Description	1	10	25
223896CR	SAE open-end wrench set	\$24.95		\$29.95



**SALE**

## 4-Piece Adjustable Wrench Set

Heavy-duty carbon steel wrenches with black industrial finish. Constructed with rugged I-beam handle and four-sided jaw design for better fit and strength.

- Length x jaw opening: 12" x 1 3/16"; 10" x 1 3/16"; 8" x 1"; 6" x 1 1/16"

Part No.	Description	1	5
261711CR	Adjustable wrench set	\$9.65	\$9.15



## Adjustable Wrench

Made of chrome-plated carbon steel with knurled adjustment screw and angled head.

- Size: 6"L x 13/16"

Part No.	Description	1	5
261649CR	Adjustable wrench	\$4.15	\$3.69



## 10-Piece Metric Combo Wrench Set

- Chrome vanadium steel for strength and durability
- Drop forged for accuracy
- Ideal for confined working areas
- Sizes: 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, and 11mm

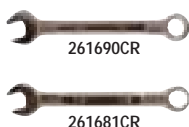
Part No.	Description	1	5
261489CR	Combo wrench set	\$7.99	\$7.59



## Combination Wrenches

Made from hardened, tempered, drop forged chrome vanadium steel. These wrenches have a straight open end and a 120° offset bi-hexagonal ring.

Part No.	Description	1	5
261702CR	9/16" wrench	\$6.39	\$6.09
261690CR	1/2" wrench	6.19	5.89
261681CR	7/16" wrench	5.69	5.39



## 2-Piece Tweezer Set

- PVC insulated handles
- Serrated tips for parts handling
- Bent tip and straight rounded tip (wide tip)
- Length: 5.8"



Part No.	Description	1	10	25
253180CR	Tweezer set	\$2.99	\$2.69	\$2.45

## 4-Piece Steel Tweezer Set



- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	1	10	50
10735CR	4-piece tweezer set	\$7.95	\$6.95	\$5.95

## 12-Piece File Tool Kit

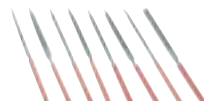
- Fine and coarse file assortment for metal and wood
- 3-piece metal flat; 2-piece metal triangle; 1 each wood round; metal round; wood half-round; metal half-round; metal/wood half-round; and 2 detachable handles



Part No.	Description	1	5
233314CR	12-piece file kit	\$14.95	\$13.45

## Steel File Sets

- Strong tool steel
- 100360CR: 8-piece (5.65"L)
  - 1 ea. 0.15"Dia., 0.13"Dia., 0.12"Dia., 0.11"Dia. and four 0.22"Dia.
- 202833CR: 6-piece (5.5"L)
  - 1 ea. 0.12"Dia. (round), 0.11"W (triangle), 0.10"W (square), 0.20"W (half-round) and two 0.2"W (flat)



Part	Mfr Cross Ref. No.	Description	1	10
100360CR	FS108F	8-piece file set	\$9.49	\$8.54
202833CR	08110	6-piece file set	1.39	1.29

## Automatic Center-Punch Tool

### Adjustable

- Precision instrument
- Alloy steel point
- Knurled steel body
- Size: 5.0"L x 0.5"Dia.



Part No.	Description	1	10	50
160282CR	Center punch tool	\$5.95	\$5.39	\$4.85

## T-Handle Reamer Tool

### Excellent for aluminum chassis work

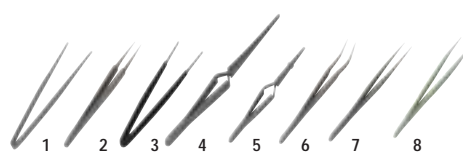
- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Handle: 3.3" long, tool: 5.3" long



Part No.	Description	1	10	25
151749CR	T-handle reamer tool	\$7.95	\$7.49	\$6.95

# Tools – Miscellaneous

## Tweezers



- 253163CR: Straight, round tapered, wide-point tip
- 252929CR: Straight round tapered, fine-point tip, stainless steel
- 253121CR: Wide-tip, insulated
- 252945CR: Self-closing reverse-action tweezers; wide point tip; stainless steel
- 252937CR: Self-closing reverse-action tweezers; medium point tip; stainless steel
- 253091CR: Curved fine-point tip
- 252911CR: Straight fine-point tip
- 253112CR: Fine-point tip, insulated, anti-static

Part No.	Length	Photo	1	10	25
253163CR	4.5"	1	\$0.99	\$0.89	\$0.79
252929CR	4.75"	2	2.25	1.99	1.79
253121CR	4.6"	3	1.49	1.35	1.25
252945CR	6.6"	4	2.59	2.35	2.09
252937CR	4.3"	5	2.25	1.99	1.79
253091CR	4.6"	6	2.25	1.99	1.79
252911CR	4.75"	7	2.25	1.99	1.79
253112CR	4.75"	8	2.25	1.99	1.79

## Strip-Wrap-Unwrap Tool

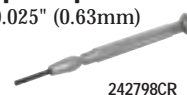
- Tool tip made of tempered steel
- Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 70 for wire
- Wrap 1 to 2 turns of insulated portion of wire for secure connections
- 4.5" long



Part No.	Mfr. Cross Ref. No.	1	10	25
34585CR	HSM30 (Modified)	\$49.99	\$44.99	\$39.99
236785CR	HSR30 (Regular)	29.95	26.95	23.95

## 30 AWG Wire Wrap/Strip Tools

Recommended for use on 0.025" (0.63mm) square posts on 0.100" (2.54mm) center grids. The first 1-1/2 loop on the modified tool has wire insulation while all loops on a regular tool have bare wires.



- Knurled handle for easy grip
- 5" long

Part No.	Description	1	10	25
242801CR	Tool (Regular)	\$17.95	\$16.15	\$14.55
242798CR	Tool (Modified)	19.95	17.95	16.15
242827CR	Replace tip for 242801CR	8.49	7.65	6.89
242819CR	Replace tip for 242798CR	9.49	8.55	7.69
242835CR	Replace stripper assembly	5.49	4.95	4.45



## IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.

- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic
- Size: 3.3"L x 1.5"W x 0.4"H



Part No.	Description	1	10	100
99362CR	IC straightener	\$6.95	\$6.26	\$5.63

For Tool Kits and Tool Cases see pages 208 - 209.



## Trimmer Potentiometer Adjustment Pocket Tool

- Glass-filled body
- Stainless steel blade
- Size: 5.2"L



Part No.	Description	1	10	100
153314CR	Trimmer tool	\$1.35	\$1.22	\$1.09

## Crimp Pin Extraction Tools

- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design • Length: 5"
- See crimp pins on pg 87 (42729CR and 42649CR)



Part No.	Prod. No.	Description	1	10
131887CR	HT319C	Male tool for 42729CR	\$10.95	\$9.86
131879CR	HT319B	Fem. tool for 42649CR	10.95	9.86

## BNC Connector Removal Tools

- For deep chassis removal
- Allows access to hard-to-reach places



Part No.	Product No.	Length	1	10	25
159151CR	HT2206	6"	\$8.49	\$7.64	\$6.88
152047CR	HT2212	12"	15.95	14.36	12.92

## D-Sub Pin Insertion/Extraction Tool

- Insertion/extraction tool: red/white plastic body; exchangeable tips



Part No.	Description	1	10	100
19094CR	Insert/extract tool	\$2.79	\$2.49	\$2.15

## Spring-Hook Tools

Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring hook tools.



Part No.	Description	1	5
226042CR	Spring hooks	\$5.95	\$5.49

## Fishing for Savings

If you've ever considered purchasing a steel fish tape, you've probably had second thoughts because of the seemingly high cost. But as you know, the right tool can save lot's of time, and that means further savings.

Fish tapes are no exception to the rule. They save significant amounts of time. They can also prevent the installer from cutting holes in walls which are costly to repair.

If you install manufacturing equipment or develop large systems, consider having a fish tape in your tool arsenal. They'll save you time, and you'll find we have the lowest prices around!

**Practical Practices**  
Money Saving Tips for the Engineer

## Steel Fish Tapes

Designed specifically to make the retrieval of wires quick and easy.

- Impact resistant yellow ABS case won't rust or dent
- Finger grips around reel to ensure easy control
- Trigger provides constant-pressure tension while retracting



Part No.	Length	1	10	25
217470CR	50'	\$24.95	\$23.70	\$22.52
217496CR	200'	SALE \$37.79	33.99	30.59

## Magnetic Tip Measuring Tape

With this measuring tape, you can easily clamp on to metal surfaces with its magnetic hook and make precise height or width measurements.

- Magnetic end hook for convenient measuring and TRU ZERO function
- Blade with nylon coating for easy scale reading
- Anti-slip and shockproof rubber case
- Heavy-duty spring and blade system
- Tape measure length: 25'



Part No.	Description	1	10
215415CR	Magnetic tip tape measure	SALE \$9.95	\$6.69

## 33' Measuring Tape

This retractable measuring tape's case has a rubber finish for easy grip and yellow contrast for easy visibility. Tape has easy-to-read markings with fractional scale every 1/16". Triple riveted end hook. Belt clip and strap for convenience.



Part No.	Description	1	5
261833CR	Measuring tape	\$9.35	\$8.49

## 3-In-1 Tool Measuring Tape, Knife, and Saw

Cut through drywalls, wood, PVC plastic, and paper. This 3-in-1 tool has a serrated saw on one side, a straight edge blade on the other and a detachable 6' measuring tape.

- Length: 8.4"



Part No.	Description	1	10
218641CR	3-in-1 tool	SALE \$4.49	\$3.85

## 6" Drywall Saw

Ideal for cutting holes in drywall.

- Hardened tempered steel blade
- Sharp tip for plunge cuts
- Hard plastic handle

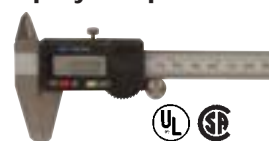


Part No.	Description	Price
224004CR	6" drywall saw	SALE \$2.49

## Digital Display Calipers

Metric or Inches

- Hardened stainless steel
- Display: inches to 0.001; mm to 0.01
- Instructions for making internal, external, depth & step measurements
- Calipers measure to 6 inches/150mm
- One-year warranty



**Includes:** Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CR, pg 159)

Part No.	Description	1	10	25
127482CR	Digital disp. calipers	\$64.95	\$58.46	\$52.61

## Metal Dial Calipers

Metric or Inches

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Length: 6" (150mm)
- Materials: metal • Color: silver



**Includes:** Fitted plastic storage case

Part No.	Description (min. reading)	1	10	25
116134CR	Metric (.02 mm)	\$29.95	\$26.96	\$24.26
116126CR	Inches (.001 inch)	29.95	26.96	24.26

## Magnetizer/Demagnetizer

Magnetize tips of screwdrivers for easy pick-up of small metal objects; demagnetize tips to prevent electrostatic discharge that will damage electronic components.

- Size: 2.0"L x 2.0"W x 1.2"D



Part No.	Description	Price
239530CR	Magnetizer/Demagnetizer	\$6.99

## Glue Gun and Sticks

- Adheres to PCBs, cardboard, wires, metal and cloth
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes 100mm long glue sticks (2 sticks included)
- Size: 7.3"L x 6.3"W



Part No.	Description	1	10	25
72696CR	Glue gun	\$9.95	\$8.96	\$8.06
78633CR	Glue sticks (6/pk)	3.15	2.84	2.55
176292CR	Glue sticks (10/pk)	4.95	4.29	3.79

## Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

**Includes:** 13 types of blades



Part No.	Description	1	10	25
72768CR	13 blade knife set	\$10.95	\$9.86	\$8.87

Opening an account  
is easy!!

**Corporate  
Customers**

Call 1-800-831-4242  
for details today.



## SurePunch™ Series Punchdown Tools

Terminates and cuts telephone wire and data



cable into 66 and 110 termination panels.

- Cushion grip, molded to the shape of your hand, for comfort and a sure, non-slip hold
  - For 22-28 AWG solid or stranded wire
  - Blades twist and lock into place
  - Length (with blade): 8.0" • One-year warranty
- 230391CR:** 110/66 combo w/ reversible cut-only blade  
**230383CR:** 110 reversible cut & punch/punch-only blade  
**230375CR:** Both 110 & 66 reversible cut & punch/punch-only blades

Part No.	Product No.	1	5
230391CR	3571	\$51.25	\$48.69
230383CR	3572	SALE \$51.25	48.69
230375CR	3579	58.85	55.91

## SurePunch™ PRO Punchdown Tool

With 110/66 Combo Blade & Clip-On Light

The FIRST and ONLY punchdown tool to have a detachable light.

Built into the handle is a hook to feed wires through holes and a pick to separate wires.

- Adjustable HI/LO spring compression
- Detachable light with long-life 2200mc LED
- Finger grips and non-slip rubber-embedded cushion handle for comfort • Length (tool only): 7.0"
- Blades twist and lock into place
- 10-year warranty on blade; one-year on tools



Part No.	Product No.	1	5
230359CR	3588	SALE \$65.49	\$62.23

## Non-Impact 110 Punchdown Tool

Cut and Punch

Terminates and cuts telephone and data wire into 110 terminating panels.

- Non-impact, low-cost • 22-28 AWG
- Solid or stranded, single insulation wire
- Comfortable rubber grip handle • Length: 4.0"



Part No.	Product No.	1	5
230367CR	3580	\$10.89	\$10.29
		SALE \$10.29	\$9.78

## Impact Punch-Down Tool

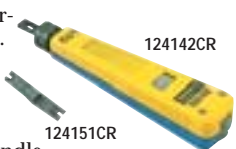
Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.

- One-year warranty

**124142CR:** For 66-type bifurcated terminals

• Size: 7.0"L x 1.4"W x 1.1"H

**124151CR:** Blade for 110-type terminals



Part No.	Description	1	10
124142CR	# 3527 Tool with 66 blade ...	\$49.35	\$45.00
124151CR	110 blade	19.95	17.95

## "GripP-STRIPPER" Wire Cutter/Stripper

Two tools strip & cut the most common wire and cable types: electrical wire, hook-up wire, multi-conductor cable, and flat cables.



- The tool head and handles are at optimum 22° angle
- Non-scoring strip and smooth wire cutting
- Features screw cutter and wire loops embedded in frames • Gripping jaws on front of tool
- Size: 7.1"L x 2.3"W x .65"D • One-year warranty

Part No.	Product No.	Description	1	5
230463CR	1117	For 10-22 AWG ...	\$13.95	\$13.26
230471CR	1118	For 20-30 AWG	13.95	13.26

## Data SureStrip™ Universal Cable Cutter/Stripper

This multi-purpose tool is an easy-to-use universal cable cutter and stripper for data, telephone, and network installations.

- Cuts and strips multiple cable types: 4/6/8-conductor flat satin cables; 4/6/8-conductor UTP/STP data cables, 25-pair UTP/STP data and telephone cables; multi-conductor round bundled cables of up to 0.5" diameter; 8-14 AWG wire
- Fully adjustable with simple thumb screw
- Length: 4.5" • One-year warranty



Part No.	Product No.	1	5
230447CR	1116	\$18.89	\$17.95

## Cable Slitter/Stripper

AM25 Slitter with 2109 blade

Strips and slits round cables with PVC,

Teflon, and THNN insulation from 0.18"-1.0" diameter.

- Adjustable cutting depth to 0.18" • Length: 5.3"
- Swivel blade for circular, longitudinal & spiral cuts
- Cable holding clip with integrated edge for removing slit insulation • Spare blade in handle
- Lifetime tool warranty; one-year on blade



Part No.	Prod. No.	Description	1	5
230404CR	1820	Cable slitter/stripper	\$37.95	\$36.05
236769CR	2109	Blade for 1820	13.40	12.75

## Impact Punch-Down Tool

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

**175071CR:** Punch-down tool with blade

• For 66-type terminals

• Size: 5.2"L x 1.5"W x 1.0"H

**175089CR:** Punch-down blade

• Blade for 110-type terminals



Part No.	Description	1	10
175071CR	Tool with 66 blade	\$34.95	\$31.46
175089CR	Punch-down blade 110	14.95	13.49

## RG59/6/RG6 Quad CATV "F" Coaxial Cable Stripper

Easily removes the outer jacket, shield braid, and inner dielectric in one single step.

- Self-regulating tension
- Adjust cutting depth on each blade for varying cable thickness with the included hex key
- Pre-set for common strip lengths
- For RG59/6/RG6 Quad CATV "F"
- Length: 4.3" • One-year warranty



Part No.	Product No.	1	5
230439CR	1257	\$16.95	\$16.09
		SALE \$16.09	\$15.29

## CrimpALL® Crimpers for RG58/59/62AU, RJ45 & CATV "F"

- Fully-ratcheting crimp cycle with built-in safety release
- Soft-rubber embedded handles
- Rugged, double-plated jaw, designed to increase life span
- Higher crimp force produced with less hand force
- No break-over hand force – less effort by the user to make the last click before making a complete crimp, the CrimpALL does all the work
- EZI-Change™ die screws makes changing dies quick and easy • Length: 9.9" • Weight: 1.3 lbs.



**230341CR:** For RG58/59/62AU with 2034 die

**230332CR:** For RJ45 (8P8C) with 2061 die

**230455CR:** For CATV "F" and RJ45 with 2687 die

Part No.	Product No.	1	5
230341CR	8001	\$64.49	\$58.95
		SALE \$58.95	\$55.99
230332CR	8030	\$64.49	58.95
		SALE 58.95	55.99
230455CR	8045	65.99	62.70

## Crimpers for Twisted Pair Cable and BNC/TNC

- Fully-ratcheting cycle with built-in safety release
- EZI-Change™ die screws
- For RJ45 (8P8C) crimps 22-28 AWG flat/round, solid/stranded wires
- For 2 or 3 piece BNC/TNC connectors crimps RG58/59/62AU cables
- Length: 8.9"



- 230421CR:** Twisted pair crimper with 2061 die
- Crimps 22-28 AWG flat/round, solid/stranded wires
- 230412CR:** BNC/TNC crimper with 2034 die
- Crimps RG58/59/62AU cables

Part No.	Prod. No.	Description	1	5
230421CR	1307	For RJ45 (8P8C)	\$49.29	\$46.83
230412CR	1317	For 2 or 3-pcs. BNC/TNC	49.29	46.83

## 30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back!

Details on page 239.



See pages 202 – 203 for our complete selection of Cutters/Strippers.



## Professional Electronic Technician Tool Kits for Every Situation!

### 25-Piece Field Repair Tool Kit

Two-in-one design allows user to carry a tool case and a briefcase in one. Features a separate case for tools that attaches to the briefcase with zippers.

- In addition to the tools listed in the matrix below, the kit includes:
  - 5" snipe nose pliers
  - Alignment driver

Size: 14.2"W x 11.0"D x 4.7"H • Weight: 6.6 lbs.



**SALE**

Part No.	Description	1	5
218211CR	Master electronic tool kit .....	\$54.95	\$49.46

### 28-Piece Cellular Phone Services Tool Kit

This kit is perfect for mobile phone repair.

- In addition to the tools listed in the matrix below, the kit includes:
  - 4" micro cutting pliers
  - 5" snipe nose pliers
  - Hot air tip
  - Self igniting micro torch
  - S-needle tip

Size: 11.9"L x 9.8"W x 1.9"H • Weight: 3.2 lbs.



**SALE**

Part No.	Description	1	5
218202CR	Cellular phone tool kit .....	\$48.59	\$44.15

### 51-Piece Tech Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!

- In addition to the tools listed in the matrix below, the kit includes:
  - 2 nut drivers
  - Solder pen
- Case features removable pallets, a combination lock and a cushioned black plastic handle

Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.



Part No.	Description	1	5
26681CR	51-piece tool kit .....	\$94.95	\$75.95

### 27-Piece Technician's Tool Kit

All the essential technician's tools in a durable canvas carrying case.

- In addition to the tools listed in the matrix below, the kit includes:
  - 5" precision range side cutting pliers
  - 5.3" precision range long nose pliers
  - Solder wick
  - Alignment driver
  - Nut screwdriver (1/4")

Size: 16.2"W x 13.0"D x 3.0"H • Weight: 7.1 lbs.



**SALE**

Part No.	Description	1	5
218229CR	Technician's tool kit .....	\$99.95	\$94.95
			\$85.46

### 55-Piece Tech Tool Kit

An assortment of tools for general & precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix below, the kit includes:
  - Screwdriver handle
  - 6-piece mini-hammer set
  - 5 piece of double edge blade
  - PLCC extraction tool
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (See pages 185-186)

Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.



Part No.	Description	1	5
136311CR	55-piece tool kit .....	\$124.95	\$112.46

### 57-Pc. Master Electronics Tool Kit

Simply every tool needed for field repair or installation. All in a handsome lockable case, with room for spare parts or special equipment.

- In addition to the tools listed in the matrix below, the kit includes:
  - 5" & 6" side cutter
  - 5" & 6" long nose pliers
  - 8" combination pliers
  - 9.5" water pump pliers
  - Testing driver
  - Alignment driver
  - Solder wick
  - Parts tube
  - PVC insulated tape
  - 5-piece file set
  - Oil can
  - 6" stainless scissors
  - Carpenter hammer
- Carrying case has two removable pallets, adjustable compartments, and combination locks

Size: 18.0"W x 13.0"D x 4.0"H • Weight: 16.0 lbs.



**SALE**

Part No.	Description	1	5
218245CR	Master electronic tool kit ...	\$124.95	\$117.95

### 100-Piece Professional Electronics Tool Kit

Kit for Field Technicians and Engineers!

- In addition to the tools listed in the matrix left, the kit includes:
  - Computer/polarity circuit tester
  - Mini vacuum cleaner
  - Cassette head cleaning fluid
  - 3.6V cordless screwdriver kit (bits included)
- Aluminum case features removable pallets, surface-type locks, and black plastic handle

Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.



Part No.	Description	1	5
242851CR	100-piece tool kit .....	\$199.95	\$189.95

### 114-Piece Tech Service Tool Kit

- In addition to the tools listed in the matrix left, the kit includes:
  - 40-pc socket pack
  - 6" side cutter
  - 6" long nose plier
  - 6" slip joint plier
  - carpenter hammer
  - 3 piece trimmer set
  - stainless steel spring hook
  - solder wick
  - 8" combination plier
  - 2 removable pallets

Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.



Part No.	Description	1	5
149024CR	114-piece tool kit .....	\$279.95	\$251.99

### Quick-Reference of Professional Tool Kit Contents

Parts included in kits	218211CR	218229CR	218202CR	26681CR	136311CR	218245CR	242851CR	149024CR
3-prong holder					1	1	1	1
Anti-static strap					1		1	1
Brush		1		1	1	1	1	1
Crimping tool		1 (7-way)			1 (7-way)	1	1	1
Desoldering pump	1	1		1	1	1	1	1
Digital Multimeter		1		1			1	
Drill set								1
Files, needle		2-pc		2-pc			6-pc	5-pc
Flashlight		1			1	1	1	1
Forceps								1
Heat sink						1		1
IC extractor	1	1			1	1		1
Inspection mirror						1		1
Measuring tape, 10-foot	1			1		1		1
Pliers, 8" lineman	1 (6")				1		1	
Pliers, bent needle nose				1	1	1	1	1
Pliers, diagonal cutter	1			1	1		1	1
Pliers, flat nose				1	1		1	1
Pliers, needle nose								
Pliers, snipe nose			1					1
Scissors				1		1	1	
Screwdriver set	6-pc	7-pc	12-pc	8-pc	3-pc	8-pc	12-pc	9-pc
Screwdrivers, precision			2-pc	6-pc	6-pc	6-pc	6-pc	6-pc
Solder core	1	1	1		1	11	1	1
Soldering aid kit, 3-pc			1 (6-pc)	1	1	1	1	1
Soldering iron	1 (30W)	1 (30W)		1	1 (30W)	1 (30W)	1 (30W)	1 (25W)
Soldering stand		1		1		1	1	
Tape, electrician		1					1	1
Tweezers	1	1	1	1	2	1	1	1
Utility components box		1		1		1	1	1
Utility knife	2-in-1	1		1	1	1	1	
Wire stripper								1
Wrench, adjustable	1	1			1	1	1	1
Wrench, hex key	7-pc	7-pc		7-pc	7-pc	7-pc	7-pc	7-pc
Wrench set						6-pc	5-pc	10-pc
Total Pieces	25	27	28	51	55	57	100	114
Price	\$54.95	\$94.95	\$48.59	\$94.95	\$124.95	\$124.95	\$199.95	\$279.95



## Economy Tool Kits for Every Budget!

### 8-Piece Compact Tool Kit

The perfect size and tools for quick repairs.

- 5" side cutter
- 5" long nose pliers
- PRO-SOFT 3 x 75mm slotted screwdriver
- PRO-SOFT #0 x 75mm Phillips screwdriver
- Stainless tweezers
- Solder core • Desoldering pump
- Portable gas soldering iron with torch tip
- Size: 8.1"L x 5.7"W x 1.4"H • Weight: 1.2 lbs.



**SALE**

Part No.	Description	1	5
218181CR	8-piece compact tool kit .....	\$16.39	\$14.89

### 11 & 12-Piece Lightweight Computer-Service Tool Kits

- Both kits include:
  - 2 nut drivers: 3/16", 1/4"
  - 3-claw parts holder
  - 1-pc hex key wrench
  - IC extractor
  - 4-pc screwdriver set
  - Tweezers

#### 167206CR: 11-Piece Tool Kit

- In addition this kit includes:
  - Clear components, tube holder
- Size: 8.5"L x 5.9"W x 1.3"H
- Weight: 1.1 lbs.



167206CR

#### 14189CR: 12-Piece Tool Kit

- In addition this kit includes:
  - 14-16 pin IC inserter/straightener
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.



14189CR

Part No.	Description	1	10	25
167206CR	11-piece tool kit .....	\$12.95	\$11.49	\$9.95
14189CR	12-piece tool kit .....	16.95	15.26	13.73

### 20-Piece SAE Computer Tool Kit

- The kit includes:
  - 1-pc hex key wrench
  - 30W soldering iron
  - Adjustable wrench
  - Needle nose plier
  - 6-pc screwdriver set
  - 6' solder – Tweezers
  - 8" wire cutter/stripper
  - Clamping tweezers
  - 3-pronged parts retriever
  - Spare parts tube – IC extractor
  - Flashlight with battery – Heavy duty molded case
  - 2 nut drivers (1/4" & 3/16")
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.



Part No.	Description	1	10	100
170966CR	Computer tool kit .....	\$24.95	\$22.46	\$20.21

### 24-Piece PC Premium Tool Kit

- 3.2mm x 75mm slotted screwdriver
- #0 x 75mm Phillips screwdriver
- 3 prong holder
- Spring tweezer
- Spare parts tube
- IC extractor • Torch
- Extension bar for ratchet bits
- Adjustable ratchet screwdriver
- Side cutter pliers • Long nose pliers
- 5mm and 7mm slotted bit
- #1 and #2 Phillips bit
- T10, T15, T20, T25, and T30 Torx bit
- 1/4" and 3/16" nut • Socket adapter
- Size: 8.4"L x 5.9"W x 1.4"H • Weight: 1.3 lbs.



Part No.	Description	1	5
226085CR	24-piece premium tool kit .....	\$19.95	\$18.95

### 26-Piece SAE Hobby Tool Set

- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozi bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits • Tweezers
- Driver handle • Compact carrying case
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.



Part No.	Description	1	10	25
170069CR	26-pc. SAE tool set ..	\$17.95	\$16.16	\$13.69

### 26-Piece Metric Hobby Tool Set

- 6 screwdrivers:
  - Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- Extension bar • Handle • 4" side cutter
- 4" long nose pliers • Plastic carrying case
- Size: 6.4"L x 4.1"W x 2.0"H • Weight: 1.2 lbs.



Part No.	Description	1	10	25
99629CR	26-piece tool set .....	\$9.95	\$9.45	\$8.95

### 40-Piece Electronic Tech Tool Kit

- The kit includes:
  - Wire cutters/stripper
  - Adapter bit for sockets
  - Pocket clip screwdriver
  - Potentiometer alignment tools
  - T10-T25 reversible Torx screwdriver bits
  - 3/16"-1/2" S.A.E. nut driver sockets
  - 6mm-12mm metric nut driver sockets
  - Slotted and Phillips screwdriver bits
  - 10-pc screwdriver set
  - Extra long 3-claw parts holder
  - IC inserter w/ pin straightener – IC extractor
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.



Part No.	Description	1	10	25
119183CR	40-piece tool kit .....	\$21.95	\$19.76	\$17.78

### Professional Tool Case

- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Weight: 8.1 lbs.



**SALE**

Part No.	Description	1	10
149016CR	Professional tool case .....	\$41.95	\$35.06

### Aluminum Tool Case

This heavy-duty case is made of lightweight durable aluminum. A single inside panel and adjustable compartments easily carry hand tools, small soldering equipment, hand-held test equipment, and more.

- Size: 19"L x 14"W x 6"D



Part No.	Description	1	5
261884CR	Tool case .....	\$51.39	\$44.15

### Heavy-Duty Tool/Equipment Case

Made of lightweight aluminum, this tool case is designed to take rough field use. Case includes tool pallet, egg carton foam lid, and 2.5" thick pre-cut foam bottom. Ideal for carrying fragile instruments, test equipment, and small hand tools.

- Size: 19"L x 14"W x 6"D



Part No.	Description	1	5
261876CR	Tool/equipment case .....	\$51.39	\$44.15

### Kwik Change Tool/Parts Tote

Versatile storage tote for organized storage space. Front drop panel reveals four slide-out storage boxes and includes two interchangeable racks and one double deep rack. Bulk storage beneath lid for larger tools and exterior rack for small tool storage. Ruler on front for added convenience.

- Size: 20.5"H x 12"W x 14.5"D



Part No.	Description	1	5
261892CR	Tool/parts tote .....	\$49.85	\$47.35

### 2-In-1 Zippered Tool Bag

A high-quality tool tote case that can be used as two separate bags or zipped together as one case. The first bag has two large pouches for documents & paperwork or large items. The second bag contains 20 pockets for tools.

- Size: 16"L x 12"W x 2.5"D



Part No.	Description	1	5
261868CR	Tool/tote case .....	\$24.25	\$22.09

## We'll Send It Today!



Over 99% of our products are in stock!  
Just place your order by 6PM EST for same business day shipment.



## Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black



Includes: 1MΩ resistor for added safety

Part No.	Description	1	10	100
34551CR	Anti-static strap .....	\$6.49	\$5.85	\$5.29

## Anti-Static Heel Strap

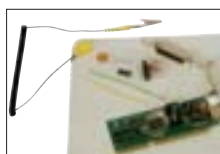
- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L



Part No.	Description	1	10	100
100327CR	Heel strap .....	\$5.49	\$4.99	\$4.55

## Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.



Part No.	Dimensions	Wt. (lbs.)	1	10	100
10575CR	11.3" x 22"	0.7	\$9.95	\$8.96	\$8.06
10583CR	19.5" x 23.5"	1.1	\$13.95	\$12.59	\$11.35
236540CR	23.5" x 27.5"	1.4	\$24.95	\$22.49	\$20.19

## Conductive Anti-Static Foam and Bags

**Don't get zapped!**

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

- For safe storage of static sensitive devices

13864CR: 24.0"L x 12.0"W x 0.25"H

\* Prepackaged: order in increments of 5

Part No.	Description	1	5
13864CR	Anti-static foam .....	\$9.29	\$8.35
78668CR	4" x 6" anti-static bags .....	*	.196
78650CR	8" x 10" anti-static bags .....	.79	.71



## Anti-Static Plastic DIP IC Storage Tubes and Rubber Rail Stops

29516CR: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. • Length: 23.75"

29524CR: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. • Length: 20"

29583CR: Rubber stops used to plug plastic rail ends



\* Prepackaged: order in increments of 10 or 100

Part No.	Mfr. Cross Ref.	Description	1	10	100
29516CR	RIC20	Thin rail .....	\$ .39	\$ .35	\$ .32
29524CR	RIC220	Wide rail .....	.39	.25	.15
29583CR	RRS	Rubber stop ....	*	.07	.06

## 3M Disposable Anti-static Wrist Strap

Disposable wrist strap for one time use and low durability applications. A hypoallergenic adhesive provides 360° contact with the skin to minimize skin-to-band resistance. The conductive adhesive on the copper foil adheres to any convenient electrical ground. A current limiting resistor is fabricated into the plastic ribbon below the wristband. One size fits all.

- Ship along with components and devices such as integrated circuits and computer peripheral cards

Part No.	Product No.	1	10	25
285456CR	3M 2209 .....	\$1.25	\$1.17	\$1.11

## Fume Extractor and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air • Static ground jack
- Air flow: 115 CFM
- 120VAC, 60Hz, 22 watt
- Noise: 49dB fan • Fuse protected
- Aerodynamic hood design for effective removal of solder fumes • Black anodized aluminum case
- Removable carbon-impregnated filter
- Compact size allows use on work bench w/ minimum space • Size: 6.4"W x 4.6"D x 7.9"H
- Weight: 4.6 lbs. • One-year warranty

Includes: Detachable power cord

Part No.	Description	1	10	25
120150CR	Fume extractor .....	\$58.95	\$52.95	\$47.79
127183CR	Replace. filters (2/pk)	12.95	11.66	10.49

## Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650°F (soldering iron)
- Adjustable knob for temp. control: 500° to 800°F
- Stability @ idle: ±9°F
- Max. air volume: 95/115CFM
- LED indicator for pilot light & lighted on-off switch
- Electronic zero-voltage switching
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.

Includes: Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	1	10
183169CR	456DLX .....	\$89.95	\$86.29

## Solder Spool Stand

- 12 pc. solder spool stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft dia.: 0.6" • Weight: 1.6 lbs.

Part No.	Description	1	10	100
141760CR	Solder spool stand ...	\$8.95	\$7.95	\$6.95

## Solder Spool & Iron Stand

- 4 pc. spool stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L • Weight: 2.0 lbs.

Part No.	Description	1	10	100
169551CR	Spool & iron stand	\$16.95	\$15.29	\$13.75

## 300-Watt Solder Pot

Temperature Regulated Between 420 – 450°C

- HI/LO temperature switch
- 2 conductor power cord: 5' 9" long
- Holds up to 1 bar of P/N 176057CR or 170464CR, below
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base) • Weight: 5.9 lbs.
- Size: (tub) 2.4"Dia. x 1.6"D • One-year warranty

Part No.	Description	1	10	25
160303CR	300W solder pot ...	\$64.95	\$58.49	\$52.65



## 600-Watt Solder Pot

Temperature Adjustable

- 2-wire power cord (5'5")
- Temperature: 0°C to 500°C
- Self regulating temperature
- On-off power switch and LED indicator for heat • Input voltage: 110VAC @ 5.5A
- Holds up to 3 bars of P/N 176057CR or 170464CR, below
- Size (unit): 6.8"L x 5.5"W x 2.8"H
- Size (tub): 3.9"L x 1.6"D • Weight: 7.4 lbs.

Includes: Skimmer and removable dross tray

Part No.	Description	1	10
172275CR	600W solder pot .....	\$189.95	\$180.45



## 2000-Watt Solder Pot

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 176057CR or 170464CR, below
- Input voltage: 110VAC @ 18A, 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1"L x 11.5"W x 6.0"H
- Size (tub): 12.0"L x 8.0"W x 2.9"H
- Weight: 23.1 lbs. • One-year warranty

Part No.	Description	1	5
149876CR	2000 watt solder pot .....	\$399.95	\$359.95



## Solder Bars

- Used for soldering pots
- Tin/lead: 60/40 & 63/37
- Size: 13"L x 0.9"Dia.

Part No.	Description	Wt. (lbs.)	1	10	25
176057CR	60/40	1.1	\$8.49	\$7.65	\$6.89
170464CR	63/37	1.8	\$10.49	\$9.96	\$9.47



## Electric & Manual Desolder Pumps

- Easily disassembled for cleaning
- Replacement tips available



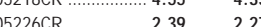
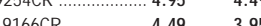
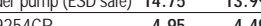
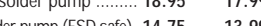
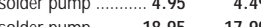
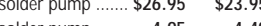
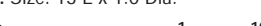
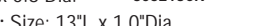
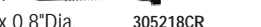
19254CR:

- UL listed
- One-hand operation
- Size: 10.5"L x 1.0"Dia.

19166CR: Size: 7.8"L x 0.8"Dia.

305218CR/305226CR: Size: 13"L x 1.0"Dia.

Part No.	Description	1	10
19254CR	Electric desolder pump .....	\$26.95	\$23.95
19166CR	Manual desolder pump .....	4.95	4.49
305218CR	Manual desolder pump .....	18.95	17.99
305226CR	Man. desolder pump (ESD safe)	14.75	13.99
19262CR	1 tip for 19254CR .....	4.95	4.49
22091CR	2 tips for 19166CR .....	4.49	3.95
307774CR	1 tip for 305218CR .....	4.55	4.35
307782CR	1 tip for 305226CR .....	2.39	2.27





## 60-Watt Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3"W x 6.0"D x 3.4"H • Weight: 4.1 lbs.

**Includes:** One 1/16" tip (P/N 35115CR, pg 212)

236460CR: Replacement sponge  
168583CR: Tip .078" for 168401CR  
168591CR: Tip .590" for 168401CR

Part No.	Product No.	1	10	25
236110CR	168-3C	\$89.95	\$79.95	\$72.95
236460CR	78-744615	2.99	2.69	2.49
168583CR	46-060102	11.95	10.79	9.69
168591CR	46-060115	12.95	11.69	10.49

## 42-Watt Controlled-Output Soldering Station



- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling maximum tip temperature for protection of temperature sensitive components • 120VAC @ 60Hz input
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord • Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

**Includes:** Soldering iron and PTA7 tip (below)

Part No.	Prod. No.	Description	1	10
170552CR	WTCPT	Solder station ...	\$129.95	\$124.95
192161CR	TC201T	Replac. iron	68.95	62.05
192170CR	PTA6	.062" screwdriver tip (600°F)	6.95	6.25
192188CR	PTA7	.062" screwdriver tip (700°F)	5.69	5.15
192196CR	PTA8	.062" screwdriver tip (800°F)	5.69	5.15

## Vacuum Pen Tools



- ESD safe body
- Picks up components with weight of 1.1 lbs. or less
- 207239CR: 4 tips and cups
- 207247CR: Aluminum body; 6 tips and cups

Part No.	Description	1	10	25
207239CR	Handivac tool	\$19.99	\$17.99	\$16.19
207247CR	Pen vac tool	37.95	34.25	30.49

## Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temperature is electronically controlled from 350°F to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

**Includes:** ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	1	10
146595CR	WLC100	Soldering station	\$48.95	\$44.09

## Weller® Soldering Tips Replacement Tips for WLC100, WP25 & WP23

Part No.	Prod. No.	Description	1	10
146608CR	ST1	Screwdriver tip 1/16"	\$5.95	\$5.35
146616CR	ST3	Screwdriver tip 1/8"	5.95	5.35
192145CR	ST6	Screwdriver tip .031"	5.25	4.75
146624CR	ST7	Conical tip 1/32"	5.95	4.95

## 50-Watt Analog & Digital Display Soldering Stations

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F
- Temp. accuracy: ±9.0°F
- ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

**Includes:** PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

Part No.	Product No.	Description	1	10
217461CR	WES51	Analog	\$115.95	\$105.95
233533CR	WESD51	Digital	158.95	150.99

## Weller® Soldering Tips

### Replacement Tips for WES51

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered

Part No.	Prod. No.	Description	1	10
16774CR	ETA	Screwdriver 1/16"	\$6.95	\$6.25
16782CR	ETJ	Long screwdriver 1/32"	6.95	6.25
16803CR	ETR	Narrow screwdriver 1/16"	6.95	6.25
16811CR	ETS	Long conical 1/64"	6.95	6.25

## 65-Watt Soldering Station with Micro Soldering Pencil



The micro soldering pencil has the shortest tip-to-grip distance on the market today, giving you excellent control by putting you closer to the work. The heating element is contained in the pencil rather than the tip so you do not throw away a good heater every time you wear out a tip.

- Fast heat-up and thermal recovery
- Tips are secured to the pencil by use of a threaded end, eliminating the use of a barrel nut
- Temperature is reduced to 300°F (150°C) when pencil is not used for 20 minutes. Unit is switched off after 60 minutes of inactivity
- ESD safe to protect sensitive components
- Voltage: 120V input; 24V output
- Temperature range: 150°F-850°F (66°C-454°C)
- Temperature accuracy: ±9°F (±5°C)
- Temperature stability: ±10°F (±6°C)

**Includes:** WSLPU power unit, WMP soldering pencil with NT1 tip, and WMPH iron stand

Part No.	Product No.	1	5
227408CR	WSL	\$255.95	\$237.95

## Weller® Soldering Tips

### Replacement Tips for WSL

Part No.	Prod. No.	Description	1	5
233576CR	NT1X	0.8mm bent round ..	\$8.89	\$8.45
233550CR	NTA	0.6mm chisel	7.59	7.25
233568CR	NTB	2.4mm chisel	7.59	7.25
233541CR	NT1	.25mm micro	7.59	7.25



## SMD Rework Station

Engineered to meet the demanding needs of today's electronic industry, technician service/repair centers, and assembly work. With this system, replacement of surface mount devices or dual-in-line components is a snap. It not only increases productivity in SMD assembly repair, but achieves a new standard of quality, superior performance, and ease of operation.

- High-performance, inexpensive, versatile
- Adjustable temperature: 250°C - 450°C (482°F - 842°F)
- Thermocouple sensor for stable temperature
- Long-life ceramic heating element
- Rapid heat-up and recovery
- 40W station, 25W ceramic element
- Size: 7.4"L x 5.0"W x 3.3"H • Weight: 2.6 lbs.

**Includes:** Base power unit, sponge, stand, surface mount tweezer iron, and stand for tweezers

Part No.	Description	1	10	25
224629CR	Rework station	\$89.95	\$80.99	\$72.85



## 45-Watt Analog Display Soldering Station

### Grounded Soldering Tip

- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0"L x 4.5"W x 3.5"H • Weight: 2.5 lbs.

Includes: Manual, soldering iron, stand and two sponges

Part No.	Product No.	Description	1	10	25
229673CR	XYT379-C	45-Watt soldering station .....	\$59.95	\$53.95	\$48.95
156814CR	XYB01	Sharp conical chisel 1/32" tip .....	4.95	4.49	3.95
156822CR	XYB04	Conical chisel 1/16" tip .....	4.95	4.49	3.95
134631CR	SP715	Replacement sponge .....	2.99	2.69	2.49

## 60-Watt Digital Display Soldering Stations

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115CR – below)

Part No.	Product No.	Description	1	10	25
236101CR	XY9-60D/ESD	Digital soldering station – ESD safe .....	\$109.95	\$99.95	\$89.95
219627CR	XY9-60A	Analog soldering station .....	99.95	89.95	79.95
168401CR	TWZ50ESD	SMD tweezer iron w/ 0.078" tip .....	79.95	71.95	64.95
168583CR	46-060102	Tip .078" for P/N 168401CR .....	11.95	10.79	9.69
168591CR	46-060115	Tip .590" for P/N 168401CR .....	12.95	11.69	10.49
236460CR	78-744615	Replacement sponge for both stations .....	2.99	2.69	2.49

## 60-Watt Desoldering & Solder/Desoldering Stations



125508CR



125516CR

- Simple fine tune feature to select within 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes

### 125508CR:

- Size: 9.2"L x 7.2"W x 3.6"H
- Weight: 13.1 lbs.

Includes: XYD12 tip and solder holder

125516CR/223853CR: Size: 11"L x 10"W x 4.0"H; Wt.: 18.1 lbs.

Includes: XYD12 tip, solder holder, tip cleaner and tweezers

223853CR: Dual display of tip temperature with selector switch for °C or °F and read/set temperature

**Special 5% Bundle Savings**  
Complete ISO 9000 digital station – P/N 236101CR & 125508CR  
Sold separately \$409.90  
Combined: P/N 207263CR  
**\$388.95**

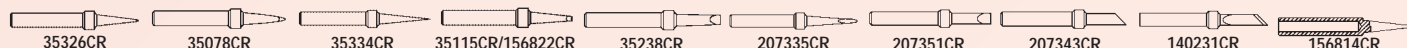
Part No.	Product No.	Description	1	10	25
125508CR	968	Desoldering station .....	\$299.95	\$269.99	\$242.99
125516CR	988	Solder/desoldering station .....	399.95	359.99	323.99
223853CR	988D	Solder/desoldering (dual display) .....	459.95	413.95	372.55
207271CR	TWZ60ESD	SMD tweezer iron with .078" tip .....	69.95	62.95	56.95
207221CR	D1A60A	Replacement desoldering iron .....	74.95	67.49	59.95
168583CR	46-060102	Tip .078" for P/N 207271CR .....	11.95	10.79	9.69
168591CR	46-060115	Tip .590" for P/N 207271CR .....	12.95	11.69	10.49
236460CR	78-744615	Replacement sponge for all stations .....	2.99	2.69	2.49

### Replacement Sponges for Legacy Models

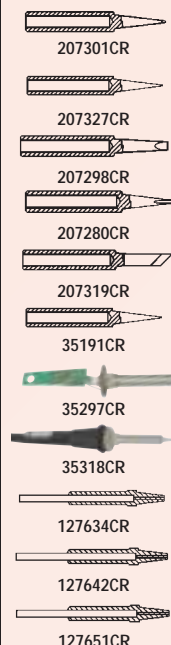
Part No.	Product No.	For Station	1	10	100
134640CR	SP815	168-3C .....	\$2.99	\$2.55	<b>\$1.95</b>
134631CR	SP715	XY-60D, XY-379 & P/N 229673CR .....	2.99	2.69	2.49

See page 215 & 216 for Chemicals & other accessories to assist you in your soldering projects.

## Tips & Replacement Parts for XYTronic Soldering and Desoldering Products



			For XYTronic Model Numbers (*Legacy Models)														
Part Number	Product Number	Description	168-3C	200CX, 200PHG 168 *	ALSD / DESD 379	XY60A / DESD	960D *	968	988	999SDM *	JS238 *	168-3C	2660 *	Pricing			
														1	10	25	
35326CR	XY401	Soldering tip - conical bevel 1/32"		✓	✓		✓	✓			✓	✓	✓		\$4.49	\$3.95	\$3.65
35078CR	XY402	Soldering tip - semi-chisel 1/32"		✓	✓		✓	✓			✓	✓	✓		4.49	3.95	3.65
35334CR	XY403	Soldering tip - conical sharp 1/64"		✓	✓		✓	✓			✓	✓	✓		4.49	3.95	3.65
35115CR	XY404	Soldering tip - conical chisel 1/16"		✓	✓		✓	✓			✓	✓	✓		4.49	3.95	3.65
35238CR	XY405	Soldering tip - semi-chisel wide 1/8"		✓	✓		✓	✓			✓	✓	✓		4.49	3.95	3.65
207335CR	XY406	Soldering tip - long conical chisel 3/64"		✓	✓		✓	✓			✓	✓	✓		2.95	2.69	2.39
207351CR	XY410	Soldering tip - chisel 3/16"		✓	✓		✓	✓			✓	✓	✓		2.95	2.69	2.39
207343CR	XY411	Soldering tip - wedge 3/16"		✓	✓		✓	✓			✓	✓	✓		2.95	2.69	2.39
140231CR	XY430	Soldering tip - SMD flat pack 7/32"		✓	✓		✓	✓			✓	✓	✓		8.95	7.95	7.25
156814CR	XYB01	Soldering tip - sharp conical chisel 1/32"	✓			✓				✓					4.95	4.49	3.95
207301CR	XYB02	Soldering tip - conical semi-sharp 1/32"				✓				✓					4.95	4.49	3.95
207327CR	XYB03	Soldering tip - conical sharp 1/64"	✓			✓				✓					4.95	4.49	3.95
156822CR	XYB04	Soldering tip - conical chisel 1/16"	✓			✓				✓					4.95	4.49	3.95
207298CR	XYB05	Soldering tip - semi-wide chisel 1/8"	✓			✓				✓					4.95	4.49	3.95
207280CR	XYB06	Soldering tip - long conical chisel 3/64"	✓			✓				✓					4.95	4.49	3.95
207319CR	XYB30	Soldering tip - wedge blade 3/16"	✓			✓				✓					8.95	7.65	5.75
35191CR	XY25	Soldering tip - conical sharp 1/64"												✓	6.49	5.85	5.25
35297CR	XY37	Heating element- (nichrome)		✓	✓		✓				✓			✓	20.95	18.95	16.95
35318CR	XY48	Assembly - 60W w/ nichrome heater		✓	✓		✓				✓			✓	30.95	27.95	24.95
127634CR	XYD10	Desoldering tip - 1.0mm (.0394")						✓	✓		✓				8.95	7.95	7.25
127642CR	XYD12	Desoldering tip - 1.2mm (.0472")						✓	✓		✓				8.95	7.95	7.25
127651CR	XYD15	Desoldering tip - 1.5mm (.0586")						✓	✓		✓				8.95	7.95	7.25







## 16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572CR:  
• Length: 7.5"

- 36329CR:  
• Black anodized steel base – 5.3"L x 3.3"W  
• See below for replacement sponge (P/N 134631CR)  
• Fits most soldering irons .85" diameter

Includes: Sponge

Part No.	Description	1	10	100
116572CR	Soldering iron .....	\$16.95	\$15.29	\$13.75
36329CR	Soldering stand .....	4.95	4.46	4.01
134631CR	Sponge (for P/N 36329CR) .....	2.99	2.69	2.49



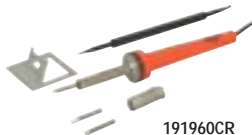
## Light-Duty 23-Watt Soldering Iron Kit

- Ideal for hobby or electronics kit work
- 1/8" removable tip
- Indicator light
- Length: 8"
- 120VAC @ 60Hz

Includes: Iron, MT1 (cone shaped), MT2 (screwdriver), MT3 (chisel) 1/8" tips, lead free solder, soldering aid tool and stand  
• Weight: 2.0 lbs.

189384CR/191978CR/191986CR: 2 pack

Part No.	Description	1	10	25
191960CR	Iron kit (SP23LK) .....	\$16.95	\$16.10	\$15.30
189384CR	1/8" cone tip (MT1) .....	4.95	4.49	3.95
191978CR	1/8" screwdriver tip (MT2) .....	3.79	3.59	3.45
191986CR	1/8" chisel tip (MT3) .....	4.49	4.04	3.64



## Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord
- 25-watt power consumption
- Interchangeable tips (pg 212)
- UL listed • Length: 8.0"
- One-year warranty

Includes: 1.6mm conical tip

Part No.	Description	1	10	25
129040CR	25W solder. iron ....	\$11.49	\$10.35	\$9.35

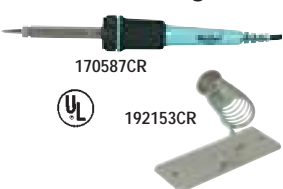


## High-Quality 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz

Includes: Power cord & ST3 tip (pg 211)

Part No.	Product No.	Description	1	10
170587CR	WP25	25W solder iron .....	\$32.95	\$31.35
192102CR	WP35	35W solder iron ....	39.95	35.95
192153CR	PH25	Solder iron stand .....	16.19	15.35



## Butane-Powered Cordless Soldering Iron and Tips

This butane-powered soldering iron is designed for many popular cordless applications. Most common are automotive repair, aviation, electrical components, field repair, shrink tubing, television repair and more.

- Cordless, simple operation in the shop or field
- No electrical interference • Automatic ignition
- Up to 200 minutes of operation in a full load
- Soldering temperature range: 240°F to 1000°F
- Torch temperature: 2400°F

Part No.	Prod. No.	Description	1	5
255265CR	PRO-120	Soldering iron .....	\$44.95	\$42.69
262107CR	S-30	Tip, deflector .....	1.19	1.09
255273CR	PS-1	Tip, 1/32" flat .....	8.99	8.75
255290CR	PS-2	Tip, 3/32" flat .....	8.99	8.75
255302CR	PS-3	Tip, 1/8" flat .....	8.99	8.75
255311CR	PS-4	Tip, 3/16" flat .....	8.99	8.75
255329CR	PS-5	Tip, 1/32" chisel .....	8.99	8.75
255337CR	PS-6	Tip, 3/32" chisel .....	8.99	8.75
255361CR	PS-9	Tip, hot knife .....	8.99	8.75
255370CR	PS-10	Tip, hot blower .....	8.99	8.75

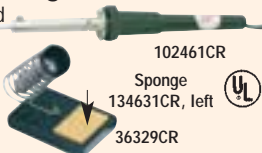


## Special! Low-Cost Irons

### 30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- Length: 8.3"
- 110-120VAC

Part No.	Description	1	10	100
102461CR	30W soldering iron .....	\$4.99	\$4.49	\$4.04
116020CR	Replacement tips (2) .....	2.25	1.79	1.25
36329CR	Soldering stand .....	4.95	4.46	4.01



### 35-Watt Soldering Iron

- UL approved
- Ideal for maintenance and hobby use
- 0.157" removable tip
- Length: 8.1"
- 110-120VAC

Part No.	Description	1	10	100
208987CR	35W soldering iron .....	\$2.99	\$2.69	\$2.45
208995CR	Replacement tips (2) .....	.99	.89	.79
209074CR	Solder roll, 8mm (.031") .....	5.49	4.89	3.95



## Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.

- 25W, 40W, & 60W • Length: 9"
- 120VAC; 6' cord with 3-prong plug
- Tips for 224611CR/224602CR: 226000CR chisel; 226018CR conical
- Tips for 195223CR: 226026CR chisel; 226034CR conical

Part No.	Product No.	1	10	25
224611CR	200PHG-25W .....	\$7.95	\$7.15	\$6.45
224602CR	200PHG-40W .....	9.95	8.95	8.09
195223CR	200PHG-60W .....	13.95	12.49	12.11
226000CR	44-240517 tip .....	.95	.85	.79
226018CR	44-240513 tip .....	.95	.85	.79
226026CR	44-240617 tip .....	1.95	1.79	1.59
226034CR	44-240603 tip .....	1.95	1.79	1.59



## Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting

Includes: soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

Part No.	Prod. No	Description	1	5
152207CR	PSI-100K	Tool kit .....	\$79.95	\$75.95



## WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904

- 900°F tip temperature • LED indicator light
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Iron performance equivalent to 25-watt iron • Weight: 1.1 lbs.

Includes: Soldering iron, recharging stand, Ni-Cad battery pack, and tips

Part No.	Description	1	10
132783CR	Power Pro cordless iron .....	\$61.95	\$58.85



## SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760°F
- Heater insulation exceeds 100MΩ • 120VAC
- Heater power consumption: 35W each

Includes: 0.095" tip

Part No.	Description	1	10	25
168410CR	Tweezer iron .....	\$59.95	\$53.95	\$48.95
168583CR	Tip .078" .....	11.95	10.79	9.69
168591CR	Tip .590" .....	12.95	11.69	10.49



## Weller® 100-Watt Soldering Iron

- "Closed loop" method of controlling maximum tip temperature
- Nominal heat-up time with 700°F tip is 110 seconds
- 120VAC @ 60Hz input
- Length: 6" • Weight: 0.7 lbs.

Includes: CT6F7 (0.375" screwdriver tip; 700°F)

Part No.	Prod. No.	Description	1	5
192081CR	W100PG	Solder iron .....	\$62.95	\$59.79
192090CR	CT6F7	.375" screwdriver tip .....	8.59	7.75



## Hot Air SMD Rework Station with Digital Display

The Hot-Air SMD 850D is engineered to meet the demanding needs of today's electronic industry, technicians, service/repair and assembly rework. The system not only increases productivity for SMD assembly and repair but also achieves a new standard of quality.

- Incorporates a US made pump – the largest in the industry
- Long life ceramic heater insures accurate and sufficient heat where you need it
- Adjustable air-flow
- Electronically controlled temperature system with digital readout in preset and actual temperature
- Automatic cooling mode protects the heating element
- Power supply: 100-120 or 220-240VAC
- Airflow capacity: 1.5L/min. – 28L/min.
- 310W nichrome heating element
- Hot air temperature range: 100°-385°C (212° – 725°F)
- Size: 7.4"W x 9.6"D x 5.0"H



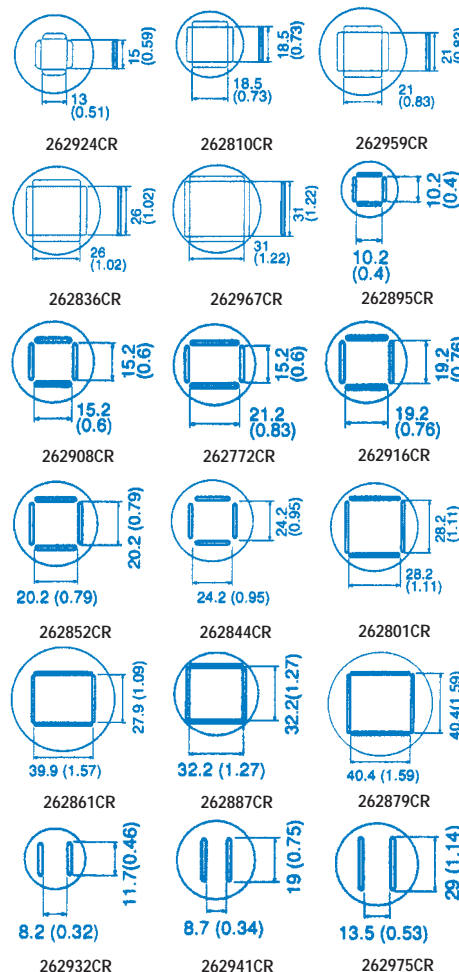
- 25W diaphragm pump
- Weight: 10.8 lbs.



**Includes:** Precision 5 pc. non-magnetic tweezer set, 4 focus hood tips (single 2.5mm and 4.4mm pipes, P/N 262895CR and 262908CR)

Part No.	Product No.	Description	1	5
262705CR	850D	Hot air SMD rework station .....	\$395.00	\$375.25
262983CR	HG850D	Heat gun replacement .....	78.95	74.95
262924CR	A1141B	Focus hood tip, PLCC 11.5 x 14 .....	34.95	33.25
262810CR	A1135B	Focus hood tip, PLCC 17.5 x 17.5 .....	34.95	33.25
262959CR	A1136B	Focus hood tip, PLCC 20 x 20 .....	49.95	48.29
262836CR	A1137B	Focus hood tip, PLCC 30 x 30 .....	49.95	48.29
262967CR	A1138B	Focus hood tip, PLCC 30 x 30 .....	49.95	48.29
262895CR	A1125B	Focus hood tip, QFP 10 x 10 .....	34.95	33.25
262908CR	A1126B	Focus hood tip, QFP 14 x 14 .....	34.95	33.25
262772CR	A1128B	Focus hood tip, QFP 14 x 20 .....	34.95	33.25
262916CR	A1127B	Focus hood tip, QFP 17.5 x 17.5 .....	34.95	33.25
262852CR	A1261B	Focus hood tip, QFP 20 x 20 .....	49.95	48.29
262844CR	A1182B	Focus hood tip, BQFP 24 x 24 .....	49.95	48.29
262801CR	A1129B	Focus hood tip, QFP 28 x 28 .....	49.95	48.29
262861CR	A1263B	Focus hood tip, QFP 28 x 40 .....	79.95	75.95
262887CR	A1265B	Focus hood tip, QFP 32 x 32 .....	79.95	75.95
262879CR	A1264B	Focus hood tip, QFP 40 x 40 .....	79.95	75.95
262932CR	A1258B	Focus hood tip, SOP 7.6 x 12.7 .....	34.95	33.25
262941CR	A1260B	Focus hood tip, SOP 8.6 x 18 .....	34.95	33.25
262975CR	A1259B	Focus hood tip, SOP 13 x 28 .....	49.95	48.29

## Focus Hood Tips Dimensions: mm (in.)



## Vises

### Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



Part No.	Product No.	Description	1	5
262115CR	GV-300	Vacuum vise ..	\$47.19	\$44.85

### Clamp Vise

- Lightweight, sturdy construction
- No tools needed – finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2"
- Size: 10.0"L x 2.5"W



Part No.	Description	Wt. (lbs.)	1	10
127167CR	Clamp vise	2.1	\$17.95	\$16.99

### Hobby Table Vise

Made of aluminum die cast construction, this is an ideal tool for the hobbyist.

- Jaw width: 2.4"
- Maximum opening: 2.0"
- Clamps to any surface up to 1" thick



Part No.	Description	1	5
262001CR	Hobby vise .....	\$6.75	\$6.35

## PANAUSE Electronic Work Center

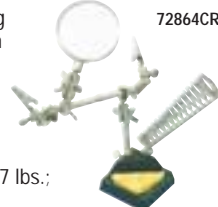
- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty



Part No.	Description	1	5	10
27060CR	Electronic center ....	\$74.95	\$71.25	\$66.95

### Third Hand

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690CR: 0.7 lbs.; P/N 72864CR: 1.4 lbs.



Part No.	Description	1	10	50
26690CR	Third hand .....	\$5.95	\$5.35	\$4.79
72864CR	W/ soldering holder .....	7.95	7.19	6.49

## 30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!  
Details on page 239.

## Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777CR:

- For cleaning soldering iron tips without the use of water and sponge
  - Metal wool for cleaning
  - Rubberized base for stability
- 156777CR 73584CR
- 73584CR: Highly active non-corrosive and non-conductive flux with excellent wetting action

Part No.	Description	1	10	50
156777CR	Tip cleaner & stand .....	\$4.95	\$4.49	\$4.05
160004CR	Metal wool replacement	2.79	2.49	2.29
73584CR	Rosin paste flux (2 oz.) ..	1.99	1.89	1.79

## PANA VISE Vacuum Base Vise

An exceptionally lightweight, portable vise that firmly attaches to any flat, smooth, non-porous surface. A single knob locks the head into position, while a second knob locks the arm at any angle you select. This vise will hold any item weighing up to 3 pounds.

- Head moves through three planes: 210° tilt, 360° turn and rotation
  - Grooved jaws are excellent for holding small objects and are made of reinforced thermal alloy and opens up to 2.9"
  - Fine/coarse adjustment knobs control jaw pressure
  - Arm movement is 140°; positive indents control movement to prevent "flopping"
  - Lever locks vacuum pad into place on any flat, smooth, non-porous surface
  - Jaw size: 2"H x 1"W
  - Overall height: 7.5"H
- Base diameter: 3.4"  
• Weight: 0.8 lbs.

Part No.	Product No.	1	10
251791CR	209 .....	\$32.49	\$30.99

## PANA VISE Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty

Part No.	Product No.	1	10
27131CR	M381 .....	\$55.95	\$53.25

## PANA VISE PVJr. Vise

- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350°F
- Vertical/horizontal jaw grooves
- Fine/course adjusting knob
- The vise neck tilts, turns and rotates
- Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs.
- One-year warranty

Part No.	Description	1	10
134439CR	Jr. vise w/ mountable base ..	\$21.95	\$19.95

**For additional tools  
see pages 200 - 208.**

## Rosin Core Solder Rolls and Pocket Packs

Part No.	Mfr.	% Composition			Dia. (In.)	Wt. (lbs.)	Pricing			
		Tin	Lead	Silver			1	10	50	100
141778CR	Kester (pak)	60	40	0	.031	0.04	\$2.59	\$2.35	\$1.99	\$1.85
32117CR	Kester	60	40	0	.031	1.00	13.19	11.89	10.69	9.59
73605CR	Kester (pak)	62	36	2	.020	0.10	1.75	1.49	1.31	1.15
112344CR	Kester	63	37	0	.020	1.10	17.95	16.19	14.55	13.09
151474CR	Kester*	63	37	0	.031	1.00	17.69	15.95	14.35	12.89
170456CR	Golden	60	40	0	.031	0.06	1.39	1.25	1.05	1.05
141794CR	Super	60	40	0	.031	0.55	5.95	5.39	4.85	4.35
141786CR	Super	60	40	0	.031	1.10	7.95	6.95	6.25	5.59
141778CR	Super	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

\* Organic core

## Lead-Free Solder Tip Tinner

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint!

- 0.7 oz. tin with self adhesive pad

Part No.	Description	1	10	50
132986CR	Lead-free tip tinner	\$4.95	\$4.59	\$4.19

## 5' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.

- Length: 5'

Part No.	Description	1	10	100
139951CR	.030"W desolder braid ..	\$2.25	\$1.95	\$1.75
124126CR	.060"W desolder braid ....	2.35	2.15	1.95
124118CR	.075"W desolder braid ....	2.39	2.15	1.95
263708CR	.098"W desolder braid ....	2.59	2.35	2.23

## 5' Desoldering Braids

- Easy-to-use, handy dispenser
- Braided copper with flux

Part No.	Description	1	10	100
41081CR	.079"W braid (5') .....	\$1.49	\$1.35	\$1.19
41099CR	.098"W braid (5') .....	1.55	1.29	1.15
153461CR	.120"W braid (5') .....	1.59	1.39	1.25

## ProWick® Desoldering Braid

Pure Rosin

Finest oxygen-free and oil-free fine gauge wire, the 100% copper wire is then coated with flux, which cleans connections thoroughly during desoldering to insure maximum solderability. The thin coating of flux also provides dependable, long lasting protection from oxidation.

- 263581CR with bobbin

Part No.	Product No.	1	10	100
263695CR	1803-5F (0.075"W) ....	\$1.95	\$1.77	\$1.68
263599CR	1804-5F (0.098"W) .....	2.09	1.89	1.79
263581CR	1811-5F (0.098"W) .....	2.39	2.19	2.09

## Desoldering Wick

No more burnt fingers

- Handy dispenser
- Pure copper braid
- No clean flux formula

Part No.	Description	1	10	25
175986CR	0.067"W braid .....	\$2.99	\$2.69	\$2.42

## One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.

- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC
- One-year warranty
- Gun casing size: 7.0"L x 4.0"W
- Weight: 2.2 lbs.

Includes: 1.0mm tip

Part No.	Description	1	10	25
129066CR	Desolder gun .....	\$99.95	\$89.95	\$79.95
140214CR	"Y" replacement tip	10.95	9.95	8.95
134594CR	1.0mm replace. tip .....	8.95	7.95	7.19
134607CR	1.2mm replace. tip .....	8.95	7.95	7.19

## Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W

Part No.	Mfr. Cross Ref. No.	1	10	25
159126CR	HT156 .....	\$2.65	\$2.38	\$2.15

## Heat Sink and 7-Piece Soldering Aid Kit



100378CR: Heat sink absorbs and dissipates heat during soldering & desoldering of sensitive parts  
100503CR Includes soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

Part No.	Description	1	10	50
100378CR	Heat sink .....	\$0.75	\$0.71	\$0.59
100503CR	Soldering kit .....	4.49	4.27	4.27

## Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover

Part No.	Description	1	10	50
158131CR	Pump bottle .....	\$9.95	\$8.95	\$7.95



## Heat Sink Compound

- 1 gram tube heat sink compound
- 5/pack
- Color: white gel



Part No.	Mfr. Cross Ref. No.	1	10	25
259151CR	NTE303	\$1.63	\$1.55	\$1.48

## Heat Sink Compound

Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.



- Color: opaque white

Part No.	Mfr. Cross Ref. No.	1	10	100
167249CR	THM250 (2 oz.)	\$9.95	\$8.96	\$8.06
236822CR	54114 (1 oz.)	4.95	4.49	3.95

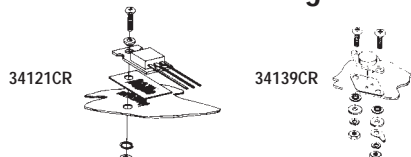
## Heat Sink Compound 4-oz. Tube

This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave-solder baths.



Part No.	Product No.	1	10
169252CR	1978DP	\$16.95	\$14.95

## Heat Sink Mounting Kits



- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121CR	TO-220	5 pieces	\$3.95	\$3.55	\$3.19
34139CR	TO-3	12 pieces	3.95	3.59	3.25

## DATA Direct Etch PCB "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.



Part No.	Product No.	Wt. (lbs.)	1	10
70412CR	ER1	0.7	\$11.95	\$10.95

## DATA Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16"T



Part No.	Description	156751CR	1	10	25
156751CR	Single sided	\$4.95	\$4.49	\$3.95	
156742CR	Double sided	6.49	5.85	5.25	
156734CR	4 oz. Pos. developer*	6.95	5.95	4.95	

\*Shipped via UPS ground to continental U.S. only

## Acid Brush

- Used for application of reactive solvents



Part No.	Description	1	10	100	1000
153322CR	Metal handle, 6"	\$0.65	\$0.59	\$0.45	\$0.31



- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs



## Workshop Chemicals



### Envi•Ro•Tech™ Duster

Removes microscopic contaminants, line, dust, metallic oxide, deposits, and other soils without the use of harmful solvents.

Part No.	Description	Wt. (lbs.)	1	12
139900CR	10 oz. aerosol w/ trigger*	0.8	\$6.95	\$6.25
263530CR	15 oz. aerosol w/ trigger*	0.8	8.23	7.49

### Envi•Ro•Tech™ Freezer

Rapidly evaporating liquid that can chill to -62°F.

Part No.	Description	Wt. (lbs.)	1	12
139934CR	10 oz. aerosol can*	0.8	\$8.99	\$7.99

### ECOLINE Flux Remover

- Dissolves R, RMA, RA, SA & most no-clean fluxes

Part No.	Description	Wt. (lbs.)	1	12
118041CR	10 oz. flux remover*	0.8	\$9.49	\$8.55

### ECOLINE Contact Cleaner

- Ideal for switches, relays & other places on electrical connections
- Will not damage switch housings

Part No.	Description	Wt. (lbs.)	1	12
118033CR	10 oz. contact cleaner*	0.9	\$8.95	\$7.95

### TechClean® Wiper

This hydro-entangled cellulose/polyester wipe has high absorbency with extra-low particulate and chemical extractables.

Part No.	Description	Wt. (lbs.)	1	12
263564CR	100 sheet/pk	1.1	\$15.59	\$14.25

### Isopropyl Alcohol

99.8%+ pure, anhydrous isopropanol for all-purpose cleaning. Excellent for tape head cleaning, removal of fluxes, light oils, polar soils, and white mineral residue.

Part No.	Description	Wt. (lbs.)	1	12
263572CR	1 pint bottle*	1.1	\$7.35	\$6.69

\*Shipped via UPS ground to continental U.S. only

## DATA Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.



Part No.	Product No.	Wt. (lbs.)	1	10
16731CR	12-750*	4.6	\$39.95	\$36.95

## DATA Dry Concentrated Etchant

- Makes one pint of etch solution



Part No.	Product No.	1	10	25
70201CR	ER3	\$3.95	\$3.49	\$2.95

\*Shipped via UPS ground to continental U.S. only

## Fine-L-Kote™ Silicone Conformal Coating

A type SR silicone resin conformal coating that has excellent moisture and fungus resistance properties offers chemical resistance and is recommended for harsh environments. Contains Opti/Scan™ to allow for black light inspection.

Part No.	Description	Wt. (lbs.)	1	12
263548CR	12 oz. aerosol can*	1.0	\$16.79	\$15.95

## Fine-L-Kote™ Urethane Conformal Coating

As a urethane coating, this is highly resistant to most solvents, moisture, fungus, and molds. A clear, repairable coating, it is formulated with a black light indicator Opti/Scan, to provide checks for conformity in quality control.

Part No.	Description	Wt. (lbs.)	1	12
263556CR	12 oz. aerosol can*	1.0	\$15.45	\$14.69

## Flux Remover Pen

A unique combination of hydrocarbon solvents and alcohols makes it an excellent defluxer. This can also be used as an all-purpose cleaner for removal of light oils, silicones, waxes, greases, and similar contaminants.

Part No.	Product No.	Wt. (lbs.)	1	12
263724CR	11.5 ml pen	0.1	\$6.19	\$5.61

## Conductive Pen

Contains a fast-drying, silver-filled ink designed to quickly make highly conductive silver traces.

- Repairs traces
- Makes smooth jumpers
- Links components
- Shields components

Part No.	Description	Wt. (lbs.)	1	12
263716CR	4.89 ml pen	0.1	\$12.69	\$12.05

## Overcoat Green Pen

Designed to insulate printed circuit board traces and components against high voltage arcing, and provides protection from moisture. Configured for rework and repair where precision application is necessary.

- Protects conductive pen traces
- Repairs permanent solder mask

Part No.	Description	Wt. (lbs.)	1	12
263732CR	5 ml pen	0.1	\$9.85	\$9.36

## We'll Send It Today!

Don't worry about backorders. Over 99% of our products are in stock! Just place your order by 6PM EST for same business day shipment.



## 3X, 3-Bulb Adjustable Magnifying Lamp

Adjustable rectangular 3-diopter lens allows independent movement of the lens for best lighting and viewing angles.

Three 9-watt compact fluorescent bulbs located to the side and top of the lens provide superior lighting to your workspace or job at hand. The integral spring-balance arm reduces the chance of pinched hands from springs, and provides a sleek clean look.

- 47" long arm
- 2 on/off buttons
- Color: beige
- UL listed



Part No.	Description	1	10	25
217517CR	Adj. magnifying lamp	\$79.95	\$74.95	\$69.95

## Tweezers with 8X Magnifier

The perfect combination hand tool for professionals working with small objects. Magnifying glass stays in perfect focus with tweezer heads.

- Stainless steel construction
- Precision tip tweezers
- 1.2" diameter 8 diopter lens
- Length: 3.8"



Part No.	Description	1	5
217824CR	Tweezer magnifier	\$6.29	\$5.99

## Wide View 2X Foldable Magnifier

This folding 2X magnifier is very popular among professionals needing a large-view magnifier plus the convenience of portability. Made of high-quality plastic, the frame is light with a precision glass lens. Easy-to-read scales in inches (scale of 1/16") and millimeters are etched on the base.

- Size (unfolded): 6.1"W x 5.3"D x 6.5"H



**SALE**

Part No.	Description	1	10
218296CR	Foldable magnifier	\$6.79	\$6.16

## General Purpose Illuminated 3X Magnifier

- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.



Part No.	Description	1	10	25
149542CR	Illuminated magnifier	\$4.49	\$3.99	\$3.64
151087CR	1.5V AA battery (req. 2)	.22	.20	.18

See pages  
159 - 161  
for Batteries.



## 3X Magnifying Lamps

- 45" extension arm
- Supplied with 22-watt circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3X magnification
- Weight: 7.3 lbs.



Part No.	Description	1	10	25
100829CR	Black lamp	\$59.95	\$53.95	\$49.95
149981CR	White lamp	59.95	53.95	49.95

## Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.



Part No.	Description	1	10	25
22710CR	Magnifying lamp	\$26.49	\$25.19	\$23.89

## Precision 5X Magnifying Lamp

The arm extends to 40", is adjustable to any direction or angle, and has a 5X magnifying glass with built-in light. This is the perfect tool to help identify small electronic components and magnify a printed circuit board to help solder electronic components.

- 5" diameter lens
- Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

Includes: 22W circuline fluorescent bulb



Part No.	Description	1	10	25
197456CR	Magnifying lamp	\$109.95	\$98.95	\$88.95

## 3X Magnifier with Adjustable Stand

- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia. (base)



Part No.	Description	Wt. (lbs.)	1	10
148881CR	Magnifier	2.5	\$13.95	\$12.56

## Flexible Neck Magnifier

Never squint again at small fine print or have a hard time holding a magnifying glass while holding two other tools with only two hands. Just simply clamp the magnifying lens on to a table or workbench and adjust the flexible gooseneck into position.

- 3.5" diameter & 3x diopter lens
- Arm length: 20"



Part No.	Description	Price
239548CR	Flexible neck magnifier	\$12.99

**For Our Complete Selection of Tools  
see pages 201 - 211.**

## Super Bright, Super Reliable LED Flashlights

The perfect tool for individuals who really depend upon a flashlight that always works. Containing space-age solid-state circuitry, batteries last 14 times longer than conventional flashlights and function continuously up to one month. Its super bright white LEDs will last at least 11 years.

- Waterproof, designed for all weather conditions
- Shockproof, withstands a drop from 4'
- Low cost per hour of operation
- Industrial grade switch, rated for 10,000 operations
- Rubber over-molding

**215677CR:** One month continuous operation using three "D" cell batteries (not included, P/N 215845CR, pg 159)

**215685CR:** 25-days continuous operation using three "C" cell batteries (not included)

**215693CR:** 14-days continuous operation using three "AA" cell batteries (not included, P/N 198707CR, pg 159)

**262422CR:** 210 hours of continuous operation using 3 "AAAA" batteries (included)

**261972CR:** Headtorch delivers 330 hours of continuous operation using 3 "AA" batteries (not included, use P/N 198707CR, pg 159)



Part No.	Prod. No.	LEDs	Length	1	10
215677CR	LW-4000	10	10.6" .....	\$63.95	\$60.79
215685CR	LW-3000	7	8.9" .....	53.95	51.29
215693CR	LW-2100	4	7.9" .....	33.95	32.29
262422CR	LW-TEC1000	1	— .....	21.80	20.55
261972CR	LW-HT	4	— .....	37.95	34.16

## Digital Display Calipers

**Metric or Inches**

- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs.
- One-year warranty

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CR, pg 159)



Part No.	Description	1	10	25
127482CR	Digital disp. calipers	\$64.95	\$58.46	\$52.61

## Low-Price Guarantee

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10%!

Just call us. It's that simple!



# Solderless Breadboards, Prototype Boards & Accessories

Color Code Legend  
New Sale Qty. Save

**JAMECO ValuePro** These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681CR (pg 219).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty \* WBU5 and JE series do not interconnect



20757CR



20773CR



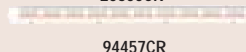
20790CR



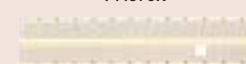
20811CR



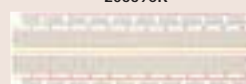
20600CR



94457CR



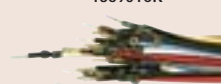
20669CR



20722CR



136901CR



77825CR

**Attention Educators! Buy jumper wire (pg 219) in bulk and SAVE!** (see Hook-up Wire on page 70)

## WBU5 Series Key Features:

- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

## JE Series Key Features:

- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289CR & 20079CR, pg 219)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)

Part Number	Product Number*	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L" x W"	Baseplate Size L" x W"	Weight (lbs.)	Pricing			
									1	10	50	100
94457CR	JE19	0	1	100	0	6.5 x 0.4	—	0.04	\$2.95	\$2.65	\$2.39	\$2.15
20600CR	JE21	1	2	400	0	3.3 x 2.1	—	0.13	5.25	4.73	4.25	3.83
20669CR	JE22	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95	4.49	3.95
194280CR	JE35	1	1	740	0	6.9 x 2.1	—	0.23	9.95	8.99	8.09	7.25
194298CR	JE37	1	2	840	0	6.9 x 2.4	—	0.25	9.95	8.95	7.95	7.25
194255CR	JE38	1	2	970	4	2.9 x 5.6	4.9 x 6.3	0.50	16.95	15.25	13.75	12.35
20722CR	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	9.39	8.45	7.61	6.85
194271CR	JE34	2	3	1,560	3	6.5 x 4.0	8.5 x 4.7	0.73	15.95	14.39	12.95	11.65
20757CR	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	13.65	12.28	11.06	9.95
136901CR	WBU504*	2	3	1,855	4	5.5 x 5.5	7.4 x 6.3	0.90	22.99	20.99	18.99	16.99
20773CR	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	19.95	17.95	16.16	14.54
20790CR	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	27.29	24.56	22.10	19.89
20811CR	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	33.59	30.23	27.21	24.49

## Great Savings on Breadboard Test Leads

Part No.	Description	1	10	25
77825CR	Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm)	\$12.95	\$11.69	\$10.49

## PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.



73550CR

- PCB construction • Gold-plated round pins
- Silkscreen numbers identify pin numbers in groups of 5 and 10 • Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover

Part No.	Pins	Size (L x W)	1	10	100
73541CR	44	2.3" x 1.6" ...	\$11.95	\$10.79	\$9.69
73550CR	68	3.4" x 1.6" .....	15.95	14.49	12.95
73568CR	84	4.3" x 1.9" .....	23.95	21.59	19.45

## PCI-Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.



**SALE**

Part No.	Description	1	10
141372CR	PCI prototype bus board ....	\$64.95	\$58.46

## Making Your Own Printed Circuit Board Book

**JV Enterprises** No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages)



Part No.	Description	Price
141524CR	Making PCBs Book .....	\$19.95

## 8/16-Bit ISA Solderless Plug-In Breadboard



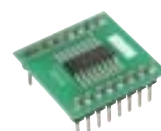
**SALE**

- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines • 2,352 contact points
- Durable construction • One-year warranty
- Size: 13.8"L x 5.0"W • Weight: 1.0 lb.

**Easy PC/XT/AT Prototyping!**

Part No.	Description	1	10	25
81672CR	8/16-bit breadboard	\$57.95	\$52.16	\$46.94

See page 222 for Jameco's surface mount prototyping boards.





## Wire Jumper Kit (350 pcs.)

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers



19289CR

**19289CR: 350-piece wire jumper kit**

- Handy, durable, clear plastic case
- 20079CR: 350-piece refill for 19289CR**
- Case not included

Part No.	Description	1	10	50	100
19289CR	Wire jumper kit ..	\$15.95	\$14.39	\$12.95	\$11.65
20079CR	Refill for 19289CR ...	10.99	9.89	8.90	8.01

## Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue



Part Number	Mfr. Cross Ref. No.	Length (mm / inch)	1	10	100
126341CR	JW50	50 / 1.97 ...	\$3.95	\$3.49	\$2.95
126341CR	JW100	100 / 3.94 ....	4.95	4.49	4.05
126324CR	JW200	200 / 7.87 ....	5.19	4.69	4.25

## Resistance and Capacitance Decade Substitution Boxes

Wide-range decade substitution boxes for product design or calibration checks.



- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7"W x 5.7"H x 1.4"D
- Weight: 0.7 lbs.



211668CR

- 211668CR:**
- 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211676CR

- 211676CR:**
- 5% capacitance substitution from 100pF to 11,111μF
- 5 decade ranges of capacitance

Part No.	Description	1	10
211668CR	Resistance .....	\$98.95	\$93.95
211676CR	Capacitance .....	128.95	122.45

## Digital/Analog Design Labs

- Two 7-Segment Displays (digit height: 0.3")
- One-year warranty

### Solderless Breadboard

- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies

- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

### Function Generator (5 ranges)

- Frequency range: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vp-p variable
- Triangle wave output: 6Vp-p fixed
- Square wave output: ±5V fixed



75838CR

International  
115/220VAC  
Switchable



201890CR

Part No.	Tie Points	Fixed Power Supply	Pulse Generator	Frequency Counter	Multimeter	Includes
75838CR	1580	±5VDC @ 1.0A	No	No	DCV (Digital)	Power cord, manual
201890CR	2960	±5VDC @ 0.5A	1Hz to 1MHz switchable	Yes	ACV, DCV, DCmA, resistance (analog)	Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
75838CR	Digital lab	10.6 x 13.3 x 5.0	8.1 .....	\$276.95	\$249.95	\$226.95
201890CR	Digital/analog lab	13.9 x 12.8 x 4.9 (back panel)	11.8 .....	429.95	389.95	349.95

## Digital-Analog Design Lab

### Solderless Breadboard

- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

### DC Power Supplies

- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
- Fixed DC output: +5VDC, 1A; -5VDC, 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

- Function Generator** • Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable • Triangle wave output: 0-6 Vpp variable • Square wave output: 0-8 Vpp variable

### Other features:

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ
- 8 data switches
- 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: A, A, B, B)
- 2 banana sockets, 2 BNC jacks
- One-year warranty
- Two 7-segment LED displays (digit height: 0.3")
- 8 red LEDs with separate input terminals

Includes: Power cord and manual



International  
120/220VAC  
Switchable

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
136266CR	Digital-analog lab	12.8 x 9.8 x 3.7	8.5 .....	\$379.95	\$341.99	\$307.79

## Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907CR, pg 64
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs.
- One-year warranty



International  
120/220VAC  
Switchable

Includes: Power cord

Part No.	Description	1	10	25
136258CR	Powered breadboard	\$99.95	\$89.95	\$87.95

## AC/DC Power Supply

*Ideal for Breadboards on previous page*



International 120/220VAC  
Switchable

### Output Specifications:

- +5VDC @ 1A;
- -5V @ 300mA fixed;
- 0 to +15VDC @ 500mA variable;
- 0 to -15VDC @ 300mA variable;
- 12-6-0-6-12 tapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact & lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841CR, pg 196
- Size: 7.4"W x 5.5"D x 2.6"H
- Color: beige
- Weight: 5.5 lbs.
- One-year warranty

Part No.	Description	1	10	25
77681CR	Power supply ...	\$119.95	\$109.95	\$99.95

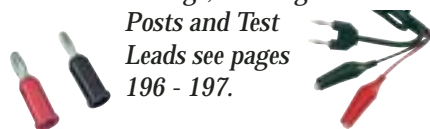


Over 99% of our products are in stock!

Just place your order by 6PM EST for same business day shipment.

## We'll Send It Today!

**For Banana Plugs, Binding Posts and Test Leads see pages 196 - 197.**



**For additional Power Supplies see pages 189 - 190.**



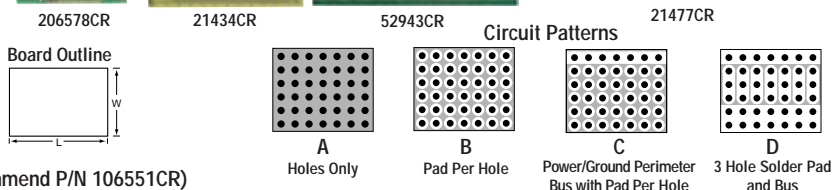
# Prototyping PC Boards and Accessories

Color Code Legend  
New Sale Qty. Save

## JAMECO ValuePro General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- PCB material epoxy glass
- Plated through pads are double-sided



See pg 221 for PCB mounting enclosures and hardware (recommend P/N 106551CR)

Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 221)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing			
											1	10	50	100
105099CR	2855PCB	1.60 x 2.70	18921CR	B	Single-sided	288 x .035"	None	None	2 x .115"	.02	\$5.25	\$4.73	\$4.25	\$3.83
105101CR	5002PCB	1.50 x 3.50	11957CR	C	Single-sided	365 x .038"	4	None	2 x .140"	.02	6.95	6.25	5.59	4.95
263185CR	PCB-403	1.80 x 3.10	18921CR	B	Plated through	300 x .042"	None	None	4 x .115"	.03	6.95	6.25	5.63	5.09
105128CR	2853PCB	2.00 x 4.40	18913CR, 11965CR	C	Single-sided	669 x .038"	4	None	4 x .140"	.03	7.95	6.95	6.25	5.59
105110CR	2300PCB	2.40 x 3.40	11869CR	C	Single-sided	637 x .038"	4	None	2 x .140"	.03	7.95	6.95	6.25	5.59
263206CR	PCB-463	2.40 x 4.10	N/A	B	Plated through	640 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
263214CR	PCB-858	2.50 x 4.50	18913CR	B	Plated through	640 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
105152CR	2851PCB	3.10 x 5.50	18892CR	C	Single-sided	1450 x .035"	7	None	4 x .140"	.07	9.95	8.95	7.95	6.95
263222CR	PCB-69	3.30 x 3.70	N/A	B	Single-sided	900 x .042"	None	None	4 x .120"	.05	8.95	8.09	7.25	6.55
105136CR	2320PCB	3.30 x 4.50	11885CR	C	Single-sided	1266 x .035"	4	None	4 x .140"	.06	9.95	8.95	7.95	6.95
105161CR	2852PCB	3.60 x 7.00	18905CR, 11973CR	B	Single-sided	2225 x .035"	4	None	4 x .140"	.10	14.95	13.45	11.95	10.95
206586CR	2746APCB	4.30 x 6.80	209349CR	C	Single-sided	2550 x .042"	5	None	4 x .140"	.07	10.95	9.86	8.87	7.98
21434CR	JE401(8001)	4.50 x 6.50	18868CR	B/D	Single-sided	2360 x .042"	2	None	None	.12	21.95	19.76	17.78	16.00
21451CR	JE405(8003)	4.50 x 6.50	18868CR	C	Single-sided	2360 x .042"	1	None	None	.12	19.95	17.95	14.36	10.77
206578CR	2743APCB	4.60 x 4.30	208910CR	C	Single-sided	1684 x .042"	5	None	4 x .140"	.07	7.49	6.74	6.07	5.46
105179CR	2505PCB	5.00 x 6.50	11893CR, 18868CR	C	Single-sided	2829 x .035"	7	None	8 x .120"	.13	14.95	13.49	11.95	10.95
21477CR	JE407(8006)	5.00 x 13.25	N/A	B	Plated through	6063 x .038"	None	None	8 x .120"	.28	41.19	37.07	33.36	30.03
206594CR	2747APCB	4.50 x 8.00	209357CR	C	Single-sided	3906 x .042"	5	None	4 x .140"	1.0	14.99	13.49	12.14	10.93
105187CR	2507PCB	6.10 x 8.80	18876CR	C	Single-sided	4771 x .035"	7	None	8 x .140"	.21	29.95	26.95	23.95	21.95
263231CR	PCB-7038	8.30 x 11.9	N/A	B	Plated through	8819 x .042"	10	5	4 x .115"	.40	55.95	52.19	49.59	47.09
263249CR	PCB-6088	9.20 x 13.0	N/A	B	Plated through	11,000 x .042"	10	None	13 x .115"	.50	55.95	52.19	49.59	47.09

### Special Limited Offers from Other Manufacturers

28177CR	PCB1	2.42 x 4.10	18913CR	C	Plated through	674 x .040"	None	None	4 x .120"	.04	\$5.95	\$5.35	\$4.79	\$4.29
43140CR	64P44XXX*	4.50 x 6.50	18868CR	A	Drilled only	2860 x .042"	None	None	None	.09	5.99	5.65	5.49	5.19
52943CR	84P44WE	4.50 x 8.50	18876CR	A	Drilled only	3740 x .042"	None	None	None	.15	9.39	8.79	8.49	8.29
37604CR	169P44WE	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.31	16.19	14.19	13.99	13.69
37612CR	169P44XXX*	4.50 x 17.0	N/A	A	Drilled only	7524 x .042"	None	None	None	.25	11.19	10.39	9.99	9.69
28193CR	PCB3	5.00 x 8.00	18876CR	C	Plated through	3705 x .042"	4	Mounting area-I/O	4 x .120"	.17	21.95	19.76	17.78	16.00
37621CR	169P84WE	8.50 x 17.0	N/A	A	Drilled only	14,448 x .042"	None	None	None	.53	23.95	22.75	21.59	20.49

\* PCB material: phenolic

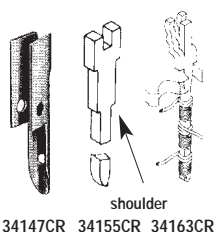
† All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

## VECTOR Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:

- Material: copper alloy
- Prebagged 100 pcs.
- 34147CR: Push-In Micro-Klip Terminals
- Overall length: .36" • Post size: .032" x .045"
- 34155CR: Miniwrap Wiring Terminals • Shoulder: .045"
- Two-prong with square tail for wire wrapping
- Overall length: .69" • Post size: .025"Sq.
- 34163CR: Klipwrap Wiring Terminals • Shoulder: .045"
- Three-prong with square tail for wire wrapping
- Overall length: .83" • Post size: .025"Sq.

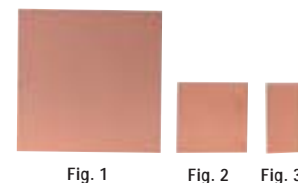


Part Number	Mfr. Cross Ref. No.	Height Above .062" Board	Length Below .062" Board	100 pc. units	
				1	10
34147CR	T421	.200	.097	\$7.29	\$6.95
34155CR	T44	.065	.530	7.99	7.49
34163CR	T49	.200	.530	11.79	11.19

## JAMECO ValuePro Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness



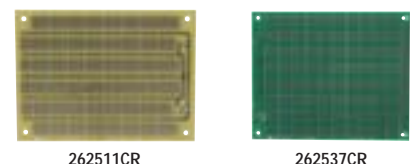
Single-Sided						
Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10
169279CR	PCBS3X6	3.0 x 6.0	3	0.1	\$3.49	\$3.15
169287CR	PCBS6X6	6.0 x 6.0	2	0.2	4.95	4.49
169295CR	PCBS12X12	12.0 x 12.0	1	0.5	13.49	12.14
Double-Sided						
Part No.	Product No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10
169308CR	PCBD3X6	3.0 x 6.0	3	0.1	\$5.25	\$4.73
169316CR	PCBD6X6	6.0 x 6.0	2	0.2	7.95	7.15
169324CR	PCBD12X12	12.0 x 12.0	1	0.7	17.95	15.95

## PT Series Prototyping Boards

Designed to accommodate any mixture of 0.3" to 0.6" wide IC's with any number of pins, as well as any combination of resistors, capacitors, diodes, transistors, etc.

- 4 power busses that connect to a power jack (recommended P/Ns 101178CR, 101186CR & 265421CR, pg 100)

Part No.	Mfr. Cross Ref. No.	Size	Hole Pads	# Holes x Dia.	# Mntg Holes x Dia.	1	5	10
262511CR	PT-5X37	5"L x 3.7"W	Double-sided	1267 x .036"	4 x .140" .....	\$24.75	\$22.95	\$21.79
262537CR	PT-6X49	6"L x 4.9"W	Double-sided	1267 x .036"	4 x .140" .....	32.49	30.89	29.35



JAMECO ValuePro

## Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

These prototype builder boards are designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom right (P/N 106551CR).

**Board description:** laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.



106551CR  
Hardware Set; 20 pcs.  
(used with all boards)  
(see details below)



\*All boards sold individually; multiple boards shown

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### ABS Speedy Enclosures

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921CR	H2855	3.1" x 2.0" x 0.9"	0.1 .....	\$3.15	\$2.84	\$2.55	\$2.30
18913CR	H2853	4.9" x 2.5" x 1.5"	0.2 .....	3.69	3.32	2.99	2.69
18892CR	H2851	6.0" x 3.5" x 1.9"	0.4 .....	4.79	4.31	3.88	3.49
18905CR	H2852	7.5" x 4.3" x 2.3"	0.5 .....	6.89	6.20	5.58	5.02

#### Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole (\*except P/N 105099CR) • Plated one side holes

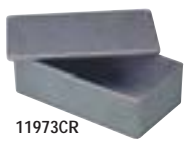
Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105099CR*	2855PCB	2.7" x 1.6"	288 .....	\$5.25	\$4.73	\$4.25	\$3.83
105128CR	2853PCB	4.4" x 2.0"	669 .....	7.95	6.95	6.25	5.59
105152CR	2851PCB	5.5" x 3.1"	1450 .....	9.95	8.95	7.95	6.95
105161CR	2852PCB	7.0" x 3.6"	2225 .....	14.95	13.45	11.95	10.95

JAMECO

ValuePro

### Die-Cast Aluminum Enclosures

High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11957CR	B5002	3.9" x 2.0" x 1.0"	0.2 .....	\$5.95	\$5.39	\$4.85	\$4.35
11965CR	B5004	4.7" x 2.4" x 1.6"	0.4 .....	8.49	7.64	6.88	6.19
11973CR	B5006	7.5" x 4.3" x 2.4"	1.2 .....	13.95	12.56	11.30	10.17

#### Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105101CR	5002PCB	3.5" x 1.5"	365 .....	\$6.95	\$6.25	\$5.59	\$4.95
105128CR	2853PCB	4.4" x 2.0"	669 .....	7.95	6.95	6.25	5.59
105161CR	2852PCB	7.0" x 3.6"	2225 .....	14.95	13.45	11.95	10.95

JAMECO

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### Aluminum Enclosures

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11869CR	B2300	4.0" x 2.0" x 2.8"	0.2 .....	\$5.45	\$4.69	\$4.22	\$3.79
11885CR	B2320	5.0" x 4.0" x 3.0"	0.4 .....	7.89	6.15	5.55	4.99
11893CR	B2335	7.0" x 6.2" x 4.6"	0.8 .....	10.95	9.25	8.29	7.49

#### Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus w/ pad per hole • Ground Bus • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110CR	2300PCB	3.4" x 2.4"	637 .....	\$7.95	\$6.95	\$6.25	\$5.59
105136CR	2320PCB	4.5" x 3.3"	1266 .....	9.95	8.95	7.95	6.95
105179CR	2335PCB	6.5" x 5.0"	2829 .....	14.95	13.49	11.95	10.95

JAMECO

ValuePro

### Metal Enclosures

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.

- Mounting screws and rubber feet included
- Glossy black textured steel top cover and ivory aluminum base



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
208901CR	B2741A	4.0" x 3.3" x 2.2"	0.4 .....	\$6.49	\$5.89	\$5.29	\$4.69
208910CR	B2743A	5.9" x 5.3" x 3.0"	0.8 .....	7.99	7.19	6.49	5.89
208928CR	B2744A	7.3" x 6.3" x 2.8"	1.1 .....	8.99	7.99	7.19	6.49
209349CR	B2746A	6.3" x 7.8" x 2.5"	0.9 .....	12.35	11.12	9.99	8.99
209357CR	B2747A	7.5" x 9.8" x 3.2"	1.4 .....	14.99	13.49	12.19	10.99

#### Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110CR	230APCB	3.4" x 2.4"	637 .....	\$7.95	\$6.95	\$6.25	\$5.59
206578CR	2743APCB	4.6" x 4.3"	1684 .....	7.49	6.74	6.07	5.46
206586CR	2746APCB	4.3" x 6.8"	2550 .....	10.95	9.86	8.87	7.98
206594CR	2747APCB	5.5" x 8.0"	3906 .....	14.99	13.49	12.14	10.93
105179CR	2505PCB	6.5" x 5.0"	2829 .....	14.95	13.49	11.95	10.95

JAMECO

ValuePro

### Heavy-Duty Instrument Cases

Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876CR includes ventilation and speaker sound slots. • Color: gray



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868CR	H2505	7.9" x 6.3" x 2.5"	0.8 .....	\$7.89	\$7.10	\$6.39	\$5.75
18876CR	H2507	10.0" x 7.5" x 3.1"	1.4 .....	8.99	7.99	7.28	6.55

#### Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105179CR	2505PCB	6.5" x 5.0"	2829 .....	\$14.95	\$13.49	\$11.95	\$10.95
105187CR	2507PCB	8.8" x 6.1"	4771 .....	29.95	26.95	23.95	21.95

JAMECO

ValuePro

### ABS Enclosures w/ Clear Tops

Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.



Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
141831CR	203C1	4.6" x 3.2" x 1.8"	0.3 .....	\$8.95	\$8.09	\$7.25	\$6.55
141840CR	203D1	6.3" x 3.2" x 1.8"	0.4 .....	9.95	8.99	8.09	7.25
141858CR	203F1	7.0" x 5.5" x 2.5"	0.8 .....	11.95	10.79	9.69	8.69

### Mounting Hardware for PC Boards

- 4 spacers, 8 screws and 8 washers

Part No.	Description	1	10	50	100
106551CR	PC board mounting hardware .....	\$1.79	\$1.65	\$1.45	\$1.35

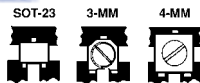
See page 122 for Rubber Feet for Enclosures.



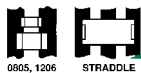


# Surface Mount Products and Prototyping Boards

Color Code Legend  
New Sale Qty. Save



## Surfboards®



Ideal for Prototyping!



Mini Breadboards for Surface Mount Devices

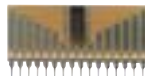
### 6000/6100 Series for Discrete Devices

- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints
- 0.1" pin spacing • Height: 0.5"

Part No.	Product No.	Pins	Width	1	10
207423CR	6103	3	0.3" .....	\$1.25	\$1.09
207407CR	6008	8	0.8" .....	2.15	1.89
207431CR	6109	9	0.9" .....	2.25	1.99
207415CR	6010	10	1.0" .....	2.29	1.95

### 9000 Series for ICs

- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H
- 207378CR/207394CR: 0.1" pin spacing



Part No.	Product No.	1	10
207360CR	9081 (For 8-pin SOIC) .....	\$1.25	\$1.05
207378CR	9082 (For 8-pin SOIC) .....	3.55	3.10
207386CR	9161 (For 14/16-pin SOIC) .....	1.75	1.50
207394CR	9163 (For 14/16-pin SOIC) .....	5.45	4.79



## Application Specific Adapters

33000 series SURFBOARDS® convert SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).



Part No.	Product No.	Accepted Devices	Pins	1	10
207589CR	33205	SOT-23-5/SC59-5	5 .....	\$1.55	\$1.39
207597CR	33206	SOT-23-6/SOT-23-L/SC-59-6/TSOP-6	6 .....	1.75	1.54

## Breadboarding with SMD

Ever tried to breadboard a circuit with a product that's only available in a surface mount package? It's not easy to pick up SMD, more difficult to solder wires and even tougher to prevent damage!

So rather than fighting the small package size, consider soldering the device to a breadboard adapter like the ones shown above. You just plug the adapter into your solderless breadboard without losing any chip functionality.

Start creating your SMD prototyping library today — they'll be ready for your next great idea and all the rest to follow.

## Practical Practices

Money Saving Tips for the Engineer



## BELLIN DYNAMIC SYSTEMS, INC.

### Surface Mount Proto Boards

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart solution from Bellin Dynamic Systems.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible w/ .100" single or dual row male headers (see pg 90)
- Size: 7.6"L x 5.0"W • Board thickness: 0.031"
- See our website ([www.Jameco.com](http://www.Jameco.com)) for additional specifications



B502



### Small SMT

Part No.	Prod. No.	Description	1	10
215491CR	B502	160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more .....	\$45.95	\$41.35
227344CR	B513	300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+ .....	45.95	41.35

### SOIC

215520CR	B505	60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more .....	\$45.95	\$41.95
227310CR	B510	140 SMT pattern, SOIC 8 to DIP .300" width .....	45.95	41.35
227328CR	B511	63 SMT pattern, SOIC n/w/d 8, 14, 16, 18, 20 to DIP .300" ..	45.95	41.35
227352CR	B514	72 SMT pattern, SOIC narrow 8, 14, 16, 18, 20 to DIP .300" ...	45.95	41.35
227361CR	B515	30 SMT pattern, SOIC 24, 28, 32 to DIP .600" width .....	45.95	41.35

### Fine Pitch Dual Row

215503CR	B503	34 SMT pattern, SOIC/QSOP/TSOP/MSOP/TSSOP & more ..	\$45.95	\$41.35
227281CR	B507	40 SMT pattern, SSOP/TSSOP 16, 20, 32, 40 & more .....	45.95	41.35

### Quad

215511CR	B504	25 SMT pattern, QFP32, 44, 48, 52, 54, 64, 70, 80, 100 PLCC18, 20, 28, 32, 44 .....	\$45.95	\$41.35
227336CR	B512	24 SMT pattern, PLCC18, 20, 22, 28, 32, 44, 52, 68, 84 & 100	45.95	41.35

### PCB Connector (0.062" thick through-hole)

227272CR	B506	45 SMT pattern, USB A, B/1394/RJ11, 12, 45/DB9 PCB conn.	\$45.95	\$41.35
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### PitchStick™

B508



227299CR	B508	20 SMT pattern, 48 inline pads, metric/rare pitches .....	\$45.95	\$41.35
227301CR	B509	20 SMT pattern, 48 inline pads, 50 & 25 mil pitches .....	45.95	41.35

## CHIPQUIK SMD 2000 Removal System

### Complete Solder/Desolder Rework Kit

- Removal alloy, solder paste, 3" solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5' solder wick



Part No.	Description	1	10
208055CR	SMD 2000 removal system .....	\$99.95	\$94.99

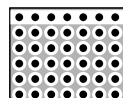
## CHIPQUIK SMD Removal Kit

- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5" of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up



Part No.	Description	1	10
141305CR	SMD removal kit .....	\$21.95	\$19.75

### Circuit Pattern



Power/Ground Perimeter  
Bus with Pad Per Hole



21531CR



28206CR



## ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application — including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold

Part Number	Product Number	Description	Size (Inches) W x L	Terminals (pg 220)			I/O Connector (not included)	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing		
				T44	T49	T421							1	10	25
21531CR	JE417	PC/XT 8-bit	4.2 x 6.50	yes	yes	yes	D-sub 9, 15, 25 & 37	Plated through	2126 x .042"	2	8 x .120"	.12	\$19.95	\$16.99	\$14.65
28206CR	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	Plated through	4890 x .042"	2	4 x .120"	.23	24.95	23.69	21.85

## microEngineering Labs LAB-X1 Experimenter's Module Board

The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended)
- Reset button • 16 switch keypad • 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included) • One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector • Size: 5.5" x 5.6"

Requires: AC adapter (below)

Part No.	Description	1	10
169113CR	LAB-X1 Experimenter Board	\$199.95	\$189.95
176903CR	LAB-X1 Experimenter Board Kit (unassembled)	139.95	132.95
198168CR	LAB-X2 for 28 and 40-pin MCUs	69.00	65.00
198176CR	LAB-X3 for 18-pin MCUs	119.95	107.95
176882CR	PIC16F877-20/P microcontroller (pg 11)	9.49	8.49
127976CR	AC adapter (details on page 152)	4.75	4.29

## microEngineering Labs EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 9.



- Simple installation with parallel port (printer) interface
- Command line operation for automated, non-interactive programming • PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (below)

Part No.	Description	1	10
132679CR	EPIC Plus PICmicro programmer	\$59.95	\$53.95
136397CR	8/18/20-pin ZIF adapter	34.95	31.95
132610CR	40/28-pin ZIF adapter	34.95	31.95
162317CR	AC wall adapter (16VDC/500mA, details on page 152)	7.95	6.95
67256CR	6' DB25 cable (details on page 72)	6.45	5.79



## Vacuum Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W • One-year warranty

Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

Part No.	Description	1	10
88268CR	Vacuum pick & place kit	\$29.95	\$26.95



## 4-Piece Conductive SMD Tweezer Set

- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip • Each is 4.5" long



Part No.	Description	1	10	25
172638CR	4-piece conductive SMD tweezer set	\$11.95	\$10.95	\$9.95



## PLCC Surface Mount and DIP IC Extractors

- Size: 4.0"L x 2.0"W (both)

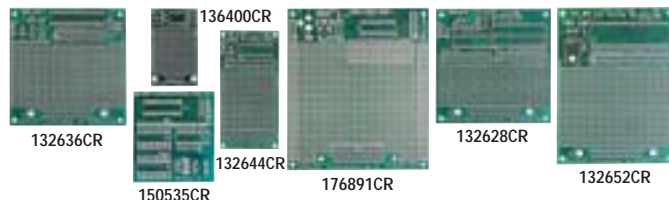


Part No.	Product No.	Description	1	10	100
16766CR	HT103B	PLCC IC extractor	\$3.95	\$3.55	\$3.19
16838CR	HT103A	DIP IC extractor	1.49	1.25	1.09

## microEngineering Labs "PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes • Large prototyping area
- Solder mask on both sides makes soldering easy • Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



**PICProto 18, 18L:** For all 18-pin PICs including PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644CR	PICProto 18	3.0 x 1.5	\$9.95	\$8.95
176891CR	PICProto 18L	3.6 x 4.1	19.95	17.95

**PICProto 3:** For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636CR	PICProto 3	3.0 x 3.0	\$14.95	\$13.49
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**PICProto 64:** For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652CR	PICProto 64	4.0 x 3.0	\$16.95	\$14.95
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**PICProto 8:** For all 8-pin PIC12Cxxx and 12CExxx

136400CR	PICProto 8	2.0 x 1.2	\$8.95	\$7.95
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**PICProto Dual:** For 18-pin PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, & 84, as well as 28-pin PIC16C55, & 57. Accepts standard 0.6" 28-pin device or 0.3" skinny DIP

132628CR	PICProto Dual 18/28	3.0 x 3.0	\$14.95	\$13.49
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**PICProto S1:** For working with circuits in "Easy Microcontrol'n" (pg 11) and "Microcontrol'n Apps" (pg 11). Holds 18-pin PICmicro, oscillator, 5-volt power supply, DIP switches, & socket to solderless breadboard

150535CR	PICProto S1	2.1 x 1.9	\$13.50	\$12.95
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## microEngineering Labs PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

**132661CR: PICBasic Compiler**

- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16CF8xx microcontrollers
- May use up to 2k of code space

**150543CR: PICBasic Pro Compiler**

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2K • Bit, byte, word arrays
- Real If...Then...Else...Endif • Hierarchical expression handling
- Interrupts in BASIC and assembler • BASIC Stamp I and II library
- Built-in LCD support • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers



Part No.	Description	1	10
132661CR	PICBasic compiler	\$99.95	\$89.95
150543CR	PICBasic Pro compiler	249.95	224.95

See pages 9 – 11 for our complete selection of  
PIC Microcontrollers



**XELTEK**

## Ultra-Fast 48-Pin USB & Stand-Alone Universal Programmer

- Fastest low-cost programmer in the market; programs high-density FLASH memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8 volts 32Mbit at 18 sec.; 13 sec. for programming & 5 sec. for verifying)
- Standard universal 48 pin-drivers support devices down to 1.5 volts; optional 100-pin expander module
- Currently 4,000 devices supported from 100+ manufacturers including memory, MCU, and PLD; 11,000+ by 1/1/2004
- Supports: EPROM, Paged EPROM, Parallel/Serial EEPROM, FPGA Configuration Serial PROM, FLASH Memory (NOR and NAND), BPROM, NOVDRAM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic
- Reliable programming of low voltage devices down to 1.5 volts
- Three modes of operation are supported: standard PC hosted operation via USB, stand-alone operation for manufacturing or service and built-in terminal mode to operate via an external instrument
- Over-current/over-voltage protection for safety of the chip & programmer hardware
- Microsoft® Windows® 98/ME/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H • Weight: 5.0 lbs.

**Includes:** 12VDC@2.5A AC adapter, Program CD, USB Cable, user's guide

Part No.	Description	1	5
231221CR	SuperPro-3000 USB universal programmer .....	\$989.95	\$940.45

For Adapters see Below



## 48-Pin Advanced, Low-Cost Universal Programmer

- Provides a 48-pin ZIF socket that accepts any number of pins
- Programmable I/O level supports low voltage devices down to 1.8V
- Device insertion and pin contact check protect chips from damaging
- Supports 5000+ devices including E/EPROM, FLASH, Microcontrollers, PLD & tests standard logic devices & SRAM
- High-speed embedded CPU generates more accurate & reliable algorithm timing
- Supports Windows® 95/98/2000/NT/ME/XP
- Connect to PC via printer port
- Size: 7.8"L x 5.5"W x 1.0"H • Wt.: 4.0 lbs.

**Includes:** Power adapter, parallel cable, user's guide & CD-ROM software

Part No.	Description	1	5
231191CR	SuperPro-280 advanced universal programmer .....	\$444.95	\$422.69

**XELTEK**

For Adapters see Below



Speed Comparison

Device Type	Program (seconds)	Verify (seconds)	Pieces in 8 hour day
28C64B	1	0.8	7578
24C256	3	8	2215
W78E58	13	3	1600
PIC12C508	1	0.8	7578

## XELTEK 40-Pin Low-Cost Universal Programmer

- Supports 2500+ devices, including most E(EP)ROM, Series E(EP)ROM & FLASH
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Features a universal ZIF socket that accepts up to 40 pins
- High-speed programming, cost-effective hardware and flexible software
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit
- Supports Windows® 95/98/ME • Printer Port Interface
- Size: 7.8"L x 5.5"W x 0.8"H • Weight: 4.0 lbs.

**Includes:** Power adapter, parallel cable, user's guide and CD-ROM software

Part No.	Description	1	5
231183CR	SuperPro-Z universal programmer .....	\$244.95	\$232.69

## XELTEK SMD Adapters for SuperPro 280/680/3000



231247CR



231255CR



231263CR



231271CR

Part No.	Product No.	Description	1	5
231247CR	A008A	28-pin PLCC adapter .....	\$84.95	\$80.75
231255CR	A015A	32-pin PLCC adapter .....	94.95	90.25
231263CR	A244A	44-pin PLCC adapter .....	109.95	104.45
231271CR	A247A	48-pin TSOP adapter .....	174.95	166.25

## High-Speed Universal Device Programmer/Tester

### Parallel Port Interface

- Programs Flash memory, PROM, EPROM/EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- 5000+ device types supported
- Hardware diagnostic program examines all 48-pin drivers
- On-board FPGA for speed: 4X faster than offshore brands
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- Supports POF and JEDEC formats
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors • CE/CUL/CSA quality certified

**Includes:** Parallel cable, installation diskette, power cord and manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

Part No.	Description	Socket	1	5
207765CR	TOPMAX	48-pin universal ZIF .....	\$875.95	\$832.95



MADE IN USA

## Versatile, Production Quality Universal Programmers

### Parallel Port Interface

- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Auto search device select function
- Fast programming speed with IC vendor approved algorithms
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

**Includes:** 01/02/03 personality modules, parallel cable, wall adapter, disk & manual  
**System requirements:** IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher

Part No.	Description	Sockets	1	5
207773CR	MEGAMAX programmer	48-pin ZIF .....	\$379.95	\$349.95
207781CR	MEGAMAX4G prog.	48-pin ZIF (1)/32-pin ZIF (3) ..	429.95	399.95

MADE IN USA



207781CR

## Fast, Low-Cost Universal Device Programmer

### Parallel Port Interface

- 2000+ device types supported
- Menu driven software
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- On-board FPGA for speed: 4X faster than offshore brands
- Auto search device select function supports (E)EPROM and microcontrollers
- Auto programming for production programming
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

**Includes:** Parallel cable, wall adapter, diskette & manual

**System Requirements:** IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM & parallel port

Part No.	Description	Socket	1	5
207731CR	CHIPMAX	40-pin ZIF .....	\$349.95	\$332.95

MADE IN USA



If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10%!

**Jameco's Low-Price Guarantee**

Just call us. It's that simple!





## Universal EPROM/Flash Programmer w/ USB Interface

- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 sec. to process 16Mbits memory
- Auto detect device pin insertion and contact check
- Select device brand & number by prompt and convenient cross search, FLASH memory auto detection
- Supports EPROMs, EEPROMs, FLASH EPROMs, Serial E/EPROMs, NV RAMs, Microcontrollers, DSPs and PLDs
- Supports file formats JEDEC, binary, Intel 80/86 HEX, Motorola HEX, Tektronic HEX



**SALE**

**Includes:** USB cable, 12V@1.5A power adapter and CD-ROM software

**System requirements:** Pentium® II or higher, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

Part No.	Description	1	5
225939CR	Leaper 48	\$575.95	\$529.95

## 512k E(E)PROM/Flash Programmer w/ USB Interface

Compact, portable, and lightweight stand-alone E(E)PROM flash programmer. Also interfaces with your PC through the USB port.

- Programs EPROMs, EEPROMs, Flash EPROMs & more
- 2 sockets for master/slave operation
- Stand-alone mode uses two 9V batteries
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and pulse width
- Supports file formats binary and machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3"L x 4.3"W x 1.8"H

**Includes:** USB cable, 12VDC@500mA power adapter and CD-ROM

Part No.	Description	1	5
220636CR	Leaper-3C	\$275.95	\$249.95



## Flash Writer/Programmer w/ USB Interface

- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: Only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronic
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports Flash EPROM, EPROM & EEPROM

**Includes:** USB cable, 12V @ 500mA adapter, CD-ROM software and manual

Part No.	Description	1	5
225947CR	Leaper 3D	\$199.95	\$179.95



## Flash Writer/Programmer w/ USB Interface

- Programs 8-bit Flash serial IC's via USB cable on Windows® 9x/ME/2000/XP
- High-speed, high-performance programming: programs a 16MB flash device in just 30 seconds
- File formats supported: Binary, Motorola HEX, Intel HEX, Tektronic HEX • Read, program, verify, blank check, erase, secure, memory edit functions
- EPROM auto ID, device insertion check
- File loading & saving w/ automatic format detection
- Project functionality to save device type, file and used procedures
- Adjustable IC parameters: voltage, algorithm, and pulse width
- Supports flash, EPROM, and EEPROM devices
- Powered by power adapter or two 9V batteries

**Includes:** USB cable, CD-ROM (software and users manual), installation manual, and power adapter

**System Requirements:** Pentium® II, 32MB of RAM, 30MB hard disk space, USB 1.1 compliant port or higher

Part No.	Description	1	10
236988CR	EPP3 flash writer/programmer w/ USB interface	\$219.95	\$208.95



**ART**  
Applied Reader Technology

## Universal Programmer – Pocket Size & Battery Powered

### Parallel Port Interface

A unique ASIC pin driver was designed specifically for this latest generation programmer, enabling the first true universal input/output capability. Along with basic functions the software permits setting specially designated functions for any selected device.

- Supports 5200+ devices: 8-bit and 16-bit EPROM, EEPROM, FLASH EPROM, Serial EEPROMs, all Microcontrollers, GAL/PAL/CE without adaptors
- Support for ultra-low voltage devices down to 1.3V
- High speed data transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Three separately adjustable voltages for all 40-pins
- Fully compatible with Windows® 95/98/ME/NT/2000/XP
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in INTEL HEX, Motorola S or binary format
- Operates on AC power adapter or 6 NiMH batteries
- Size: 4.5"L x 3.1"W x 1.3"H • Weight: 7.5 oz.

**Includes:** Printer port data cable, power adapter & CD

**System requirements:** PC with Pentium® CPU

Part No.	Description	1	5
226309CR	GALEP-4	\$369.95	\$351.49



## 16kB-256MB Universal IC Programmer/Tester

### Parallel Port Interface

Supports over 7,000 devices including EPROM, EEPROM, Serial PROM, FLASH, PLD/ CPLD/ FPGA, MPU/MCU & much more. Most devices in various package types can be programmed with the on-board 40-pin ZIF socket or through an appropriate adapter/converter. Modular pin drivers program at high speed & provide high reliability & expansion capability.

- Functions of load file, read master, program, verify, auto, ID check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration & self test

**Includes:** External power supply, DB25 M/F cable, manual & software CD-ROM

**System Requirements:** Intel Pentium, 32MB of RAM, parallel port, Windows® 95/98/NT/2000/XP, 5MB free hard disk space, CD-ROM drive

**206922CR:** UV opaque EPROM window labels (168 per pack)

Part No.	Description	1	5
216039CR	ALL-11C2 programmer	\$879.95	\$799.95
206922CR	1.1" x .046" window label	6.95	6.25



**HI-LO SYSTEMS**

## EPROM Eraser

- Erases all UV erasable EPROMs (32-pin)
- Upper & lower erasing chambers hold a total of 16 EPROMs
- Conductive foam liner eliminates static build-up
- One-year warranty • Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

**Includes:** AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

Part No.	Description	1	5
121267CR	EPROM eraser	\$159.95	\$143.95



## EPROM Erasers and Accessories

**66042CR:** Erases 1 chip in 7 minutes

- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm² • One-year warranty
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.

**Requires:** Four AA batteries (not included), recommend P/N 244515CR (pg 160)

**15712CR:** Erases 1 chip in 15 min. or 8 chips in 21 min.

- Conductive foam liner eliminates static build-up
- Maintains constant exposure distance of 1" • UV intensity: 6.8mW/cm²
- Built-in safety lock to prevent UV exposure • Size: 9.0"L x 3.7"W x 2.6"H
- Complete with holding tray for 8 chips • Weight: 2.3 lbs.

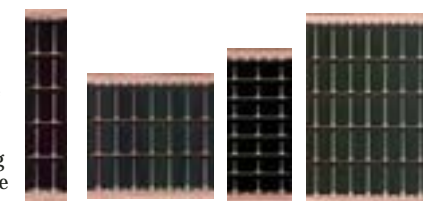
Part No.	Description	1	5
66042CR	Portable eraser	\$54.95	\$49.95
15712CR	8-chip eraser	119.95	109.95
34382CR	Lamp for 15712CR	39.95	39.95
13864CR	Foam (12" x 24" x 0.25")	9.29	8.35



## PowerFilm. Flexible Thin Film Solar Modules

### Wireless Electronics Series

The wireless electronics series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.

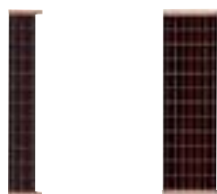


227993CR 228013CR 228030CR 228064CR

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
227985CR	SP3-37	3.0	22	2.5 x 1.5 x .01	64 x 37 x 0.2	\$3.89	\$3.49	\$3.19
227993CR	TX 3-25	3.0	25	4.5 x 1.0 x .01	114 x 25 x 0.2	2.89	2.45	1.99
171061CR	MP3-37	3.0	50	4.5 x 1.5 x .01	114 x 37 x 0.2	5.89	5.29	5.29
228013CR	MPT3.6-75	3.6	50	2.9 x 3.0 x .01	74 x 75 x 0.2	8.89	7.99	7.19
228021CR	MPT3.6-150	3.6	100	2.9 x 5.9 x .01	74 x 150 x 0.2	17.89	15.99	14.39
228030CR	SP4.2-37	4.2	22	3.3 x 1.5 x .01	84 x 37 x 0.2	5.89	5.29	4.79
228048CR	MPT4.8-75	4.8	50	3.7 x 3.0 x .01	97 x 75 x 0.2	11.89	10.69	9.59
228056CR	MPT4.8-150	4.8	100	3.7 x 5.9 x .01	94 x 150 x 0.2	22.89	20.59	18.49
228064CR	MPT6-75	6.0	50	4.5 x 3.0 x .01	114 x 75 x 0.2	13.89	12.49	11.29
228072CR	MPT6-150	6.0	100	4.5 x 5.9 x .01	114 x 150 x 0.2	27.89	24.99	22.49
228081CR	MPT7.2-75	7.2	100	10.0 x 3.0 x .02	253 x 75 x 0.6	24.89	22.39	20.19
228099CR	MPT7.2-150	7.2	200	10.0 x 5.9 x .02	253 x 150 x 0.6	39.89	37.99	34.99
228101CR	MPT15-75	15.4	50	10.0 x 3.0 x .02	253 x 75 x 0.6	26.89	24.29	21.99
228110CR	MPT15-150	15.4	100	10.0 x 5.9 x .02	253 x 150 x 0.6	44.89	42.99	39.99

### Remote Control Aircraft Series

Designed to be easily integrated with Remote Control Aircraft or anywhere weight is critical. These modules are very lightweight and can be soldered to from the back of the module via the extended copper tape, and have an extra edge seal for protection. We offer output currents with and without a strong pressure-sensitive adhesive for simple bonding.



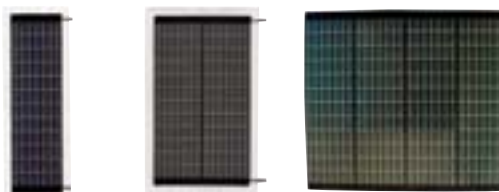
228128CR/228136CR 228144CR/228152CR

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
228128CR	RC7.2-37	7.2	50	10.6 x 2.2 x .01	270 x 55 x 0.2	\$16.89	\$15.29	\$13.79
228136CR	RC7.2-37PSA*	7.2	50	10.6 x 2.2 x .01	270 x 55 x 0.2	19.39	17.49	15.79
228144CR	RC7.2-75	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	29.89	26.99	24.29
228152CR	RC7.2-75PSA*	7.2	100	10.6 x 3.5 x .01	270 x 90 x 0.2	32.89	29.79	26.79

\*PSA = Pressure Sensitive Adhesive

### WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, extra edge seal for weather protection, and tin-coated copper leads that extend from the module.



228161CR/228187CR 228179CR/228195CR 228208CR

Part No.	Product No.	Operating Voltage (V)	Operating Current (mA)	Size (L x W x T)		Pricing		
				Inches	mm	1	10	100
228161CR	P7.2-75	7.2	100	10.3 x 3.9 x .04	270 x 100 x 1.1	\$39.89	\$36.99	\$33.99
228179CR	P7.2-150	7.2	200	10.3 x 6.9 x .04	270 x 175 x 1.1	59.89	54.99	49.99
228187CR	PT15-75	15.4	50	10.3 x 3.9 x .04	270 x 100 x 1.1	39.89	36.99	33.99
228195CR	PT15-150	15.4	100	10.3 x 6.9 x .04	270 x 175 x 1.1	59.89	56.99	52.99
228208CR	PT15-300	15.4	200	10.3 x 12.8 x .04	270 x 325 x 1.1	99.89	94.99	89.99

## Solar Energy Project Kit

Learn about the renewable energy available with solar power. Experimenter kit demonstrates the power of the solar cell to run an electric motor. Contains motor connected to solar cell, propeller, optical illusion spirals, and informative booklet.

• Difficulty level: beginner

Part No.	Description	1	10
215204CR	Solar energy project kit	\$8.79	\$7.95

**SALE**

## Photovoltaic Sun Tracker Solar Kit

This kit gives students and hobbyists a realistic taste of practical applications for solar power. Contains motor, gear train, solar cell, tracker device, and instruction booklet. Booklet explains how to make sundials and three other unusual solar projects.

Part No.	Description	1	10
215191CR	Sun tracker solar kit	\$23.25	\$20.89

**SALE**

## Solar Cell Grab Bag Assortment

About 40 irregular pieces in various sizes, shapes, and current ratings at 0.5VDC. Connect in series to increase voltage or connect in parallel to increase current.



Part No.	Description	1	10
215255CR	Solar cell assortment	\$9.89	\$8.99

## Miniature Glass Solar Panel



- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5° to +40°C
- Operating voltage: 12VDC @ 3mA
- Size: 3.6"L x 1.0"W

Part No.	Description	1	10
171985CR	Glass solar panel	\$7.89	\$7.19

## Solar Photon Racer Kit

Build your own solar racer and tap into the power of the sun!

This easy-to-assemble kit comes with everything you need, including a high-powered 1V, 500ma, ultra lightweight encapsulated solar cell and high-amp/ low-voltage motor for maximum torque and speedy acceleration. Sleek transparent plastic body, made from recycled pop bottles, looks great as is, or add your own custom paint job. The Photon can travel 10 feet in three seconds on a smooth, flat surface, when exposed to full sun.

- Difficulty level: beginner
- Size: 8.5"L x 3.8"W x 2.0"H

**SALE**

Part No.	Description	1	10
214738CR	Photon-P (painted)	\$24.95	\$19.95
215183CR	Photon-1 (unpainted)	19.15	17.25

## Forever Keychain Light

Miniature rechargeable light lasts for years and you'll never need to change a battery or bulb. Energized by solar cells, it is entirely self-contained. A squeeze turns on the LED emitting yellow light. Perfect for keychain or gift.

- Size: 2"Dia. x 0.5"Thick



**SALE**

Part No.	Description	1	10
215212CR	Forever keychain light	\$16.19	\$14.55

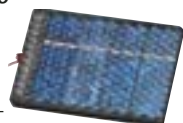


## Mini-Panel Solar Cells

Ready to Use! No Soldering

Encapsulated mini-panels utilize solar cells similar to those that power our satellites in space, yet they are safe and simple to use. Mini-panels allow for handling without the normal breakage and cell damage associated with fragile solar cells. 6" red/black lead wires attached. Modules may be connected to create different outputs.

• Size: 3.8"L x 2.5"W • Connection: lead



200221CR

Part No.	Prod. No.	VDC @ mA	Size (LxW)	1	10
200205CR	SOL2	0.5 @ 800	2.6" x 3.7"	\$7.95	\$7.15
200221CR	SOL4	2.0 @ 200	3.0" x 3.7"	8.99	7.99
215319CR	4-3.0-100	3.0 @ 100	3.8" x 2.5"	14.29	12.89
215327CR	4-6.0-50	6.0 @ 50	3.8" x 2.5"	15.79	14.39

## Solar Motor

- Operates on 0.5-3.0V @ 200mA start-up
- Runs at 80mA no load
- Low stall torque: 25-48 g-cm
- High RPM: 2500-5000 @ maximum efficiency
- Shaft diameter: 2mm
- Motor size: 1.0"Dia. x 1.5"L



Part No.	Description	1	10
215263CR	Solar motor	\$2.89	\$2.69

Our extensive line of Batteries can be found on pages 159-163.



## Eye-Catching Solar Powered Retail Display Device



See Jameco.com for Data Sheet.

Add eye-catching motion to your in-store advertising with this solar clip-on motion display. Just clip on to a fluorescent light blub, add your own signage, turn the lights on and your in-store advertising sign comes to life. Long-life solar motor turns your sign counter clockwise. No batteries or AC power to worry about. No need to worry about tripping your motion sensing alarm systems. Just simply switch off your fluorescent light and the movement stops.

Part No.	Description	1	10
215221CR	Clip-on motion retail display	\$19.69	\$17.75

## Motor and Gear Case

Combination motor and gear train in plastic case.

- Operates on 0.5-3.0V @ 0.5V
- Runs at 20mA • 6 RPM
- Strong torque @ 3V: 41 g-cm
- Shaft diameter: 2mm
- Size: 3.0"L x 2.0"W x 1.5"D



Part No.	Description	1	10
215271CR	Motor and gear case	\$14.25	\$12.79

## Portable Solar Battery Charger

Charge your batteries with free solar power. Inexpensive, easy and safe to use—completely self-contained unit, no moving parts or cords. Uses satellite type solar cells that produce the highest power to weight ratio. Compact and lightweight, you can carry this charger with you anywhere. Re-energizes carbon-zinc, alkaline, nickel-cadmium (NiCad), and nickel-metal-hydride (NiMH) batteries.

• Size: 3.6"L x 3.1"W x 1.5"D

Includes: Battery adapter to charge, AA, C, and D type batteries.



Part No.	Description	1	10
215239CR	Solar pocket charger	\$26.35	\$23.69

## Solar Button Cell Battery Charger

A convenient and safe way to revitalize worn down button cell batteries used in hearing aids, cameras, calculators, remote controls, clocks, alarms and more. LED indicator lets you know when the battery is being charged. Charges nickel-cadmium (NiCad), nickel-metal-hydride (NiMH), alkaline, mercury, and most zinc air (1.2V-1.5V) batteries.

• Size: 2.3"L x 1.4"W

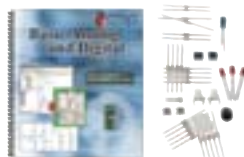


Part No.	Description	1	10
215247CR	Solar button cell charger	\$13.49	\$12.15

# Basic Stamp Learning Tools

## Basic Analog & Digital Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp. Introduces PBASIC commands for A/D conversion with resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.



Part No.	Parallax No.	1	10
282950CR	28155	\$43.95	\$39.45

## SX Tool Kit LITE

The popular SX Tech Tool Kit LITE is an excellent starting point to get you developing projects with SX-Key programming tool.

Includes: SX key Rev. F, SX tech board, (2) SX 28AC/DP 50 MIPS chips, (1) 50MHz resonator, (1) 4MHz resonator, SX key manual V 2.0 and software

162931CR: DIP-28, I/O: 20, 2k Flash, 136B RAM  
283063CR: PQFP-48, I/O: 36, 4k x 12 Flash, 262B RAM

Part No.	Parallax No.	Price
176583CR	45180	\$98.95
162931CR	SX28AC/DP	4.99
283063CR	SX48BD	7.29



## Corporate Customers

Opening an account is easy!! Just give us a call and we'll take your information right over the phone.

## Industrial Control Parts & Text

An educational tutorial on process control with the BASIC Stamp. Methods of process control are demonstrated in detail using a simple desktop heater system. A fan provides an external disturbance to the closed-loop system.



Part No.	Parallax No.	1	10
176575CR	28156	\$58.50	\$55.59

## PIC BASIC Programming & Projects

Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001) • Size: 6.1" x 9.2" • Weight: 0.8 lbs.

Part No.	Description	1	10
200168CR	PIC BASIC Programming	\$34.95	\$32.95



## Microcontroller Application Cookbook Vol. 1 & 2

Vol. 1 is a wide-ranging collection of 113 interface circuits designed around the BASIC Stamp 2. For somebody getting started with microcontrollers. Discusses timing diagrams, interfacing, A/D conversion & how to control a high-voltage circuit with a solid-state relay.

Vol. 2 is a new collection of 154 interface circuits designed around the BASIC Stamp 2.

Part No.	Parallax No.	1	10
282925CR	28113	\$58.95	\$55.95





## Robotic Controller Kits

### Board of Education Full Kit

The new Board of Education Revision C carrier board has two major changes from the Revision B. The jumper near the servo connector will select either Vdd (5 V) or Vin (unregulated input voltage) to power the servos. The three-position power switch is either (0), power to everything but servo connectors (1) or power to everything (2).

- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- P0 – P15 I/O pins
- DB9 connector for programming and serial I/O
- Female 10-pin dual row connector for optional AppModes

**Includes:** Board of Education carrier board, BASIC Stamp 2 module, pluggable wires, serial cable, CD-ROM and power supply

Part No.	Parallax No.	1	10
283101CR	28102	\$118.95	\$96.99

### Boe-Bot Full Kit

Now with Robotics text v2.0! The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education and Basic Stamp may be removed to be used as your platform for the other Stamps in Class curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. Requires 4AA batteries (not included).

Part No.	Parallax No.	1	10
282933CR	28132	\$228.95	\$217.49

### Robot Builder's Source Book

**McGraw-Hill** Everything you need to find and acquire common and uncommon robotic parts and supplies. Jameco and over 2500 mail order suppliers and other sources, including local and international businesses all cross-referenced and categorized to make your search quick and easy. (711 pages, 2003)

- Size: 8.5" x 10.0"
- Weight: 3.9 lbs.

Part No.	Description	Price
213461CR	Robot Builder's Source Book	\$16.95

### Robot Builder's Bonanza

**TAB Publishing** This fascinating guide offers a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)

- Size: 7.3" x 9.2"
- Weight: 2.5 lbs.

Part No.	Description	Price
137171CR	Robot Builder's Bonanza	\$17.95

### Servo Controller

Controls up to 16 servos and may be networked together so that two PSC's can control 32 servos using a single I/O line.

- 2400 to 384k baud serial port
- 16-bit PWM timers
- 63 ramp rates
- RS-232 serial protocol

Part No.	Parallax No.	1	10
282896CR	28023	\$38.95	\$36.95

### BOB-3 Video Text Module

BOB-3 is Decade's third-generation low-cost video text overlay module. BOB-3 lets your microcontroller or PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable characters, BOB-3 supports pseudo-graphics and multiple languages. BOB-3 generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control BOB-3 through a fast RS-232 style data link, much like a simple serial printer. BOB-3 is compatible with most microcontroller chips and modules, including the BASIC Stamp.

- Higher display density: 40x17 characters (680 max.)
- Software-controlled digital outputs (6)
- Stand-alone operation, for simple source ID or fixed reticle applications
- Faster & more reliable host communication
- Improved automatic video mode control
- Character size control

- 283733CR:
  - 254 ROM character patterns plus 63 user-definable RAM characters
  - Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- 162051CR:
  - Displays up to 308 characters (11 lines of 28)
  - 12 x 18 pixel character pattern

Part No.	Description	1	10
283733CR	BOB-3 video text module	\$99.95	\$94.95
162051CR	BOB-2 video text module	69.95	62.95

## BASIC Stamps

BASIC Stamps are small computers using a variation of BASIC called PBASIC. They are ideal for controller apps including robotics, radio-controlled interface of a digital camera, industrial pallet stacker, health monitoring systems, and much more. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines. Each can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Both allow you to store data in the EEPROM before downloading a BASIC program.

**Includes:** Embedded BASIC plus instruction sets; basic interpreter, EEPROM (non-volatile), a resonator and 5V regulator

Specifications:	127693CR	130892CR
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP
Volts Required	5-15VDC	5-15VDC
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

Part No.	Parallax No.	1	10
127693CR	BS1-IC	\$28.95	\$28.29
130892CR	BS2-IC	48.95	43.95

### BS2 Educational Starter Kit

This complete "Getting Started" kit is enhanced to include the What's a Microcontroller? (WAM) curriculum. Includes all of the BASIC Stamp hardware required to complete the activities and challenges. With this latest edition of the kit, you will receive the What's a Microcontroller? parts and text making this combination a bona fide "Getting Started" kit. With the WAM kit you'll get your feet wet through a series of over 40 activities designed to provide you with the best possible introduction to the world of BASIC Stamps.

**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

Part No.	Parallax No.	1	10
282829CR	27207	\$158.95	\$152.95

### 50MHz BASIC Stamp 2SX Module

High-speed version of BS2-IC.

- Volts required: 5-12 VDC
- RAM size: 32 bytes
- Scratch pad RAM: 64 bytes
- Microcontroller: Ubicom SX28AC
- Number of I/O pins: 16 + 2 serial
- EEPROM program size: 8 x 2k bytes, 4,000 instr.
- Program execution speed: 10,000 instructions/sec.
- Current draw @ 5V: 60mA run; 200µA sleep

Part No.	Parallax No.	1	10
159775CR	BS2SX-IC 24-pin	\$58.95	\$52.95

## Advanced Toddler Robot Kit

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements. Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because of the number of possible movements, we consider the Toddler to be appropriate for those aged 14 and above.

- Height: 10" • Weight: 4.0 lbs.

**Includes:** 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual

Part No.	Parallax No.	1	10
282837CR	27311	\$248.95	\$236.49



## BS2P Professional Starter Kit

Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

**Includes:** Manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EEPROM, DS1822 thermometer, (3) 4.7K resistors, jumper wires

Part No.	Parallax No.	1	10
202323CR	27235 kit	\$207.95	\$187.95
282984CR	45187 BS2P40 demo board	88.95	84.95



## Jameco's Low Price Guarantee

If you happen to find a like product at a lower print-advertised price, we'll beat that price by 10%! Just call us. It's that simple!

## Stamp Works Kit

This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

**Includes:** Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts

- Weight: 4.0 lbs.



## BASIC Stamp 2P Modules

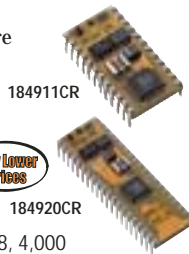
In addition to the BS2-SX (pg 228) features, these modules include commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- Scratch pad RAM: 128 bytes
- EEPROM program size: 2k x 8, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

**184911CR:** Number of I/O pins: 16 + 2 serial

**184920CR:** Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911CR	BS2P24-IC 24-pin	\$78.95	\$70.95
184920CR	BS2P40-IC 40-pin	<del>\$97.95</del> 87.95	79.95

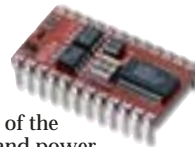


## BS2E-IC Basic Stamp Module

Using the Ubicom SX microcontroller, the BS2E-IC runs at the same speed as BASIC Stamp 2, but has the RAM and EEPROM size benefits of the BS2SX, without the speed and power consumption. Ideal for those who use the BS2 and would like more variable or program space. Programmed in Windows®.

- EEPROM (program) size: 2k x 8, ~ 4,000 instructions
- RAM: 32 bytes (6 I/O, 26 variable)
- Current draw @ 5V: 20mA run / 100µA sleep
- Microcontroller: Scenix SX28AC
- Program speed: 4,000 instructions / sec
- Number of I/O pins: 16 + 2 dedicated serial
- Voltage requirement: 5-12VDC • Package: DIP-24

Part No.	Parallax No.	1	10
283047CR	BS2E-IC	\$53.95	\$51.95



## BASIC Stamp 2 OEM Kit

A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows® editor just like the BASIC Stamp modules

**Includes:** PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

Part No.	Parallax No.	1	10
183071CR	27291 BASIC® Stamp 2 kit	\$44.95	\$42.95



## Robotic Parts and Accessories

### High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Speed: 16 seconds to 60°
- Torque: 49 oz.-in. @ 4.8V
- Can be operated by P/Ns 153648CR, 151001CR, pg 103 and 157059CR, right

Part No.	Description	Size	1	10
157067CR	Robotic servo	0.8"W x 1.4"D x 1.6"H	\$19.95	\$17.95



### Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Torque: 161 oz.-in. • Speed: 19 seconds to 60°
- Can be operated by P/Ns 153648CR & 151001CR, pg 103 and 157059CR, right

Part No.	Description	Power Supply	1	10
166351CR	Giant robotic servo	4.8-6 volts	\$49.95	\$44.95



### Radio Control System

- 75MHz band
- 1/4 mile range
- HP-2RNB mini AM receiver
- 2 HS-303 standard servos
- 2-channel proportional operation • Weight: 1.5 lbs.

**Requires:** 8 AA batteries, pg 159

Part No.	Description	Size	1	10
157059CR	Radio control system	7.5"L x 2.25"W x 2.25"H	\$89.95	\$79.95



See pages 103-107 for our extensive line of motors and motor controllers.





## 26-Pitch Press Fit Gears and Gear Set

- Works with DC motors with 0.078" shaft diameter (use P/N 162392CR)
- Heavy-duty plastic construction
- Diametral pitch: 26
- Material: polyethylene resin

**131801CR:** 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

\* Prepackaged: please order in increments of 10 or 100

Part No.	Description	Bore Size	Pitch Dia.	Works w/ Shaft Dia.	Outer Gear Dia.	1	10	100
162069CR	10 teeth gear	0.149"	0.378"	0.156 (5/32)"	0.455"	\$.89	\$.69	\$.55
162077CR	20 teeth gear	0.149"	0.756"	0.156 (5/32)"	0.842"	.89	.69	.49
162085CR	30 teeth gear	0.149"	1.142"	0.156 (5/32)"	1.225"	.89	.69	.49
162093CR	40 teeth gear	0.149"	1.540"	0.156 (5/32)"	1.623"	.89	.69	.49
162106CR	50 teeth gear	0.149"	1.900"	0.156 (5/32)"	1.985"	.89	.69	.49
162392CR	Bushing	0.075"	—	0.078 (5/64)"	—	*	.25	.22
Part No.	Description					1	10	50
131801CR	Gear set - 20 pieces (see description above)					\$7.99	\$7.29	\$6.49



162093CR



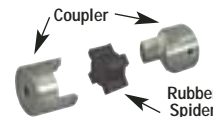
162392CR



131801CR

## Spider Couplers

- Used with motors
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually



162288CR (Coupler); 162000CR (Spider)

Part No.	Description	1	10	50
162288CR	.125" (3.18 mm) hub	\$1.35	\$1.15	\$.86
161998CR	.197" (5.00 mm) hub	1.09	.89	.59
162270CR	.250" (6.35 mm) hub	1.35	1.19	1.09
162000CR	Rubber spider	1.29	1.15	1.05

## Climax Spider Shaft Couplers

**209285CR/106606CR:**

- 1 set screw per hub
- Hub OD: 0.625" Dia. • Hub length: 0.56"



**138288CR:**

- 2 set screws (10-32 x 1/8)
- Size: 0.75"L x 0.5"D



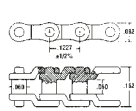
Part No.	Description	1	10	100
209285CR	.156" shaft hub	\$.85	\$.65	\$.39
106606CR	.250" shaft hub	.75	.69	.59
138288CR	.250" sleeve coupler	4.49	4.05	3.65

## 16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.



157075CR



157075CR



168276CR

**168276CR:** 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at 1/8" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at 1/4" bore size

Part No.	Description	1	10	25
157075CR	Drive chain (12" long)	\$9.95	\$8.95	\$7.95
168276CR	Sprocket set - 14 pieces (see description above)	29.49	26.49	23.89

## Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

**168284CR:** 12-piece gear set includes 1 each of the following:

- 10 teeth at 1/2" bore size; 14 and 16 teeth at 1/8" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at 1/4" bore size



157104CR



168284CR

Part No.	Description	1	10	25
157104CR	1/4" bore aluminum mounting hub w/ set screws	\$4.95	\$4.49	\$3.95
168284CR	Gear set - 12 pieces (see description above)	39.95	34.95	31.95



## Selectable Gear Box Kit

Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

- Difficulty level: intermediate



Part No.	Description	Dimensions	Price
145509CR	Selectable gear box kit with 3V motor	2.5"L x 1.1"W x 1.5"H	\$15.95

## Robotic and Computer Control Kits



### Rockit Robot Kit ▲ 96-piece kit

Explore the fundamentals of robotics with this informative and entertaining robot kit. An intelligent robot with a touch/sound sensor, if it comes in contact with an object or hears a loud noise, it automatically reverses, then turns left.

- Soldering required of PCB • Size: 4.5"L x 5.0"W x 3.5"H

Requires: 2 AA batteries (recommend P/N 151087CR, pg 159)

Part No.	Description	Wt. (lbs.)	1	10
199603CR	Rockit robot expert	1.0	\$21.95	\$19.55



### Line Tracking Robot Kit ▲ 134-piece kit

Watch as this robot follows a black line you specify. Utilizes infrared light to detect the line and control direction. This educational kit utilizes the same line follow principle of many industrial robots.

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140839CR	Line tracker kit	12.0"L x 7.0"W x 3.5"H	1.1	\$49.95	\$44.49



### Robotic Arm Trainer Kit ▲ 109-piece kit

#### Five Axes of Motion

Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways. Five motors and joints allow flexibility.

- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Grip opens to 2" wide
- Max. lifting capacity: 4.6 oz.
- Shoulder movement @ 120°
- Elbow moving range @ 135°
- Wrist rotation clockwise or counter clockwise @ 340°
- Rotates left to right at the base @ 350°
- Weight: 4.5 lbs.

Requires: 4 D batteries (recommend P/N 215845CR, pg 159)

Part No.	Description	1	10
157366CR	Robotic arm kit (unassembled)	\$74.95	\$67.49
159345CR	Robotic controller software (DOS 4.2 & up, Windows® 95/98)	84.95	76.49



## Corporate Customers

Even lower OEM pricing for larger orders!

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Build It Yourself!





= Beginner



= Intermediate



= Expert

## OWI® Obstacle Avoidance Robot Kit ▲ 107-piece kit

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.



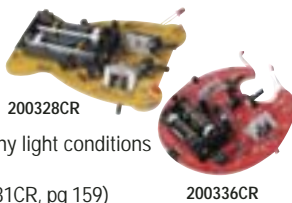
Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140821CR	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	\$59.95	\$53.95

## velleman Micro Bug Kits ■

A bright colored miniature bug shaped robot that is attracted to light.

- Two open chassis sub-miniature motors
- LED "eyes" indicate driving direction
- Adjustable light sensitivity that suits almost any light conditions
- Stops in total darkness • Size: 4.0" x 2.4"

Requires: 2 AAA batteries (recommend P/N 249181CR, pg 159)



Part No.	Product No.	Description	Pieces	1	10
200328CR	MK127	Running	26	\$18.95	\$16.95
200336CR	MK129	Crawling	29	21.45	19.35

## velleman Computer Control Interface Kit ▲ 301-piece kit

Connects to printer port without interruption of the printer. Works well in control applications.

- 16 I/Os with opto coupler
- Full opto-isolation with computer
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- 3.5" disk with routines in C++, QBASIC, Turbo Pascal

Requires: DB25 cable (P/N 65787CR, pg 72)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128928CR	K8000	9.3"L x 5.3"W	1.7	\$139.95	\$125.95

## Universal Relay Controller Card Kit ▲ 64-piece kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- 8 channels expandable to 15 with 8 each P/N 144186CR, below
- Relay output: maximum 5A/220VAC
- TTL or 5V CMOS inputs (recommend P/N 34315CR, pg 33)
- Contact voltage: 12VDC/250mA

Requires: 220 or 125VAC power source



**SALE**

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128910CR	K6714	8.3"L x 5.9"W	1.8	\$59.95	\$53.95
144186CR	VR15M121C relay (JZC-22F)		0.028	3.79	3.39

## Distance and Light Kits

### velleman Parking Radar Kit ■ 55-piece kit

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.

- Detection range: 5cm - 1.5m; angle: 5°
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095CR, pg 152) or auto power plug (recommend P/N 115001CR, pg 100)



**SALE**

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
129120CR	K3502			\$39.95	\$34.95

### velleman Stroboscope Kit ▲ 19-piece kit

Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.

- Input: 110VAC



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
117639CR	K5300	3.5"L x 2.6"W	0.5	\$18.95	\$16.95

### velleman Remote Control by Telephone ▲ 116-piece kit

- Possible to turn on or off up to three devices (switching lights on-off; check alarm systems; water heater on-off; garage doors)
- Check conditions of a switch (open or closed)
- Protected by a user-defined code
- Pick up after 3 or 8 rings (selectable)

Requires: 12VAC @ 300mA

(recommend P/N 101258CR, pg 154)

Includes: Relay for one output (10A/250VAC)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120678CR	K6501	4.1"L x 5.1"W	0.7	\$69.49	\$62.59

### Hovercraft Kit ● 25-piece kit

This super kit is fun to build and a "blast" to run, but there's a bonus: education! Through the kit's curriculum (available online), budding scientists and engineers will learn principles of electricity and circuits, propellers, conversion of energy and other core concepts. And at the end of the learning process, they'll have a cool, battery-powered hovering vehicle that can glide over any smooth surface, even water!



Part No.	Description	Price
285641CR	Hovercraft kit	\$21.79

**New**

### Lightbulb Kit ● 5-piece kit

Junior scientists can walk in the footsteps of Edison with this hands-on educational kit. The invention of the light bulb revolutionized the world, and recreating the great inventor's thought process could spark a life-long interest in science and technology.

The included booklet and kit components provide a complete learning experience, from basic electricity to the effects of vacuum and different filament materials. Whether as a gift or as the basis of a prize-winning Science Fair presentation, this kit is the perfect choice for "bright" kids! Plus, the refurbishment pack (available separately) includes all materials needed to reuse the kit, again and again!



**New**

Part No.	Description	Price
285595CR	Build your own lightbulb kit	\$54.95
285616CR	Refurbishment pack for kit	14.49

### velleman 3-Channel Light Organ Kit ■ 80-piece kit

Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.

- Frequency ranges are adjustable
- Microphone input
- Maximum load 2A per channel
- Each output has individual sensitivity control

**SALE**



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
131684CR	K8017	6.7"W x 5.6"D x 1.7"H	1.2	\$54.95	\$49.95

### IR LED Illuminator Kit ● 41-piece kit

- 36 high powered infrared LEDs
- At 24" the beam is approximately 3.5' across
- Improve low-light camcorder and CCD camera images without visible light

Requires: 12-15VDC power supply (recommend P/N 114825CR, pg 152)



**Ideal for CCD Cameras**

Part No.	Description	Dimensions	1	10
157964CR	IR illuminator kit	2" Dia.	\$16.95	\$15.29

## Ultrasonic Motion Detector Kit ■ 49-piece kit

Detect motion/movement 13 - 23 ft. away and trigger an alarm w/ this kit.

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator & all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095CR, pg 159)



Part No.	Description	1	10
125090CR	Ultrasonic alarm kit	\$29.95	\$26.95

## Senix Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105CR) or RS-232 signal (P/N 151482CR).

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825CR, pg 152

- 134105CR: • Output voltage: 0-10VDC
- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
- 151482CR: • RS-232 output

Includes: Software diskette and computer cable



Part No.	Description	Wt. (lbs.)	1	10
134105CR	Sensor - voltage output	0.2	\$159.95	\$143.95
151482CR	Sensor - RS-232 output	1.0	\$179.95	\$161.95

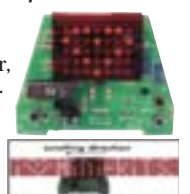
## velleman Scrolling Message Kit ■ 76-piece kit

Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN" arrow to select the character, and end your scrolling message with the "<" character.

- 35-LED display
- Maximum 16 characters
- Adjustable scrolling speed

Requires: 9 to 12VDC @ 20mA

(recommend P/N 100845CR, pg 151)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
200310CR	MK124	3.5"L x 2.6"W x 1.8"H	0.2	\$24.95	\$22.45

## velleman Flashing LED Sweetheart Kit ■ 46-piece kit

This kit shows a beating heart. Great for decorations!

- Power consumption: 8mA

Requires: 8 to 15VDC wall transformer (P/N 100095CR, pg 152) or 9VDC battery (P/N 151095CR, pg 159)



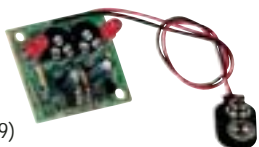
Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147555CR	MK101	2.5"L x 2.4"W x 1.2"H	0.1	\$11.95	\$10.95

## velleman Flashing LED Kit ■ 23-piece kit

Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.

- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095CR, pg 159)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147580CR	MK102	1.3"L x 1.4"W x 0.6"H	0.1	\$7.95	\$7.19



See Page 49 for  
Electroluminescence  
Wires and Miniature  
Fluorescent Lamps.

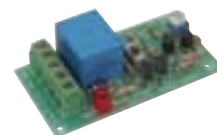


## Light Sensitive Relay Kit ■ 20-piece kit

Build a stable and advanced circuit that uses light to control a SPDT 10A relay.

- Dimensions: 2.4"L x 1.3"W x 1.0"H

Requires: 12VDC power supply (recommend P/N 100095CR, pg 152)



Part No.	Description	Wt. (lbs.)	1	10
136223CR	Light relay kit	0.1	\$12.95	\$11.65

## Flex Sensor

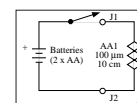
- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Nominal resistance: 10kΩ
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	1	10
150551CR	Flex sensor	\$12.95	\$11.65

## MONDO•TRONICS Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter

How it works... Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.



- 141348CR: Muscle Wires® Book & Deluxe Kit
- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® and Project Book
- 3 meters of wire

SALE

Includes: Crimps and instructions

Part No.	Description	Wire Dia. (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Pricing
141321CR	100LT	100	150	180	28	150	33	\$15.95 \$14.49
141874CR	150LT	150	50	400	62	330	20	16.95 15.29
160055CR	375LT	375	8	2750	393	2000	4	19.95 17.95

\* Multiply by 0.0098 to get force in Newtons \*\* Cycles per minute, in still air, at 20° Centigrade

Part No.	Description	1	10
141348CR	Muscle Wires® kit	\$56.95	\$52.95

## Fiber Optic Kit

### Fiber Optic Lab Kit

Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

- Fiber optic cable transmission
- Characteristics of connectors and splices
- Speed of opto-electronic devices
- Making a light guide
- Fiber optic transmitter
- Index-matching procedures
- Receiver design
- Fiber termination techniques
- Weight: 0.7 lbs.



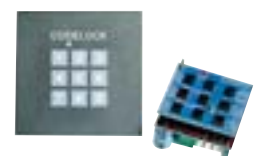
Part No.	Description	1	10
169914CR	Lab course and lab kit	\$46.89	\$42.29

## Electronic Lock

### Code Lock Kit ■ 67-piece kit

- Switch an alarm on and off or open door locks
- 3000+ codes possible
- LED indicates state
- Pulse or switch outputs
- Relay contact rating: 5A/220V

Requires: 9-15VDC (P/N 163491CR, pg 153) or 8-12VAC (P/N 100061CR, pg 154) power supply



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127554CR	K6400	1.7"L x 1.8"W	0.5	\$29.95	\$26.95

Find more products @ [www.Jameco.com](http://www.Jameco.com)



## velleman RF Code Lock Receivers ▲

- Use for car alarms, garage doors, door locks, lighting control, etc. • Range: 100 ft.
- Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)



Requires: 12-16VDC @ 100mA (recommend P/N 100095CR, pg 152)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
173235CR	K6727 2-ch receiver (RF)	75	0.5	\$39.95	\$35.95
117655CR	K6707A 1-ch receiver (RF)	75	0.5	29.95	26.99

## Infrared Remote-Control Receiver Modules



- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared • Size: 0.6"L x 0.6"W x 0.5"H
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability • 940nm wavelength

Part No.	Description	Voltage Input	1	10
220628CR	38.0kHz, side view	4.5VDC @ 1.4mA	\$2.99	\$2.69
165008CR	40.0kHz, top view	5VDC @ 5mA	2.99	2.49
176541CR	56.8kHz, side view	5VDC @ 2mA	1.69	1.27

## Infrared Transmitter/Receiver Kit ● 26-piece kit

Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0"L x 0.8"W • Receiver size: 1.4"L x 1.2"W

Requires: 6 to 15VDC battery (recommend P/N 151095CR, pg 159)

Part No.	Mfr. Cross Ref. No.	Description	1	10
177092CR	IR-2	Transmitter/receiver	\$24.95	\$22.49

## Function Generator Kit ■ 21-piece kit

### Sine, Triangle and Square Wave

Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626CR, pg 236)

Part No.	Mfr. Cross Ref. No.	Dimensions	1	10
20685CR	JE2206	4.1"L x 1.5"W	\$24.95	\$22.95

## velleman Metal Detector ■ 22-piece kit

- Proximity range adjustable to 8cm • Size: 2.1"L x 2.1"W
- LED indicator; can use a buzzer as an option (P/N 105822CR, pg 120)

Requires: 9V battery (recommend P/N 151095CR, pg 159)

Part No.	Product No.	Description	1	10
129091CR	K7102	Metal detector	\$11.95	\$10.95

## velleman Water Leak Alarm Kit ● 7-piece kit

Alarms you of water overflows and leaks!

- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer

Requires: 9VDC battery (P/N 151095CR, pg 159)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157315CR	MK108	2.8"L x 1.8"W	0.1	\$10.95	\$9.95

## Crossbow

## Accelerometers

### 141591CR 1-Axis and 141575CR 3-Axis Accelerometers

- Dynamic range and excellent frequency response
- Shielded cable: 2'L pigtail • Acceleration range: ±4g
- Size: 1.9"L x 1.0"W x 0.8"H

141591CR



Requires: 5VDC power supply (not included – recommend P/N 164101CR, pg 151)

Part No.	Description	Axis	Current	1	10
141591CR	CXL04LP1	One	8mA	\$149.95	\$134.89
141575CR	CXL04LP3	Three	24mA	339.95	319.95

## Crossbow Accelerometer Evaluation Boards

### Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308CR



177308CR: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Part No.	Product No.	Description	1	10
177287CR	ADXL202EB	Dual axis	\$59.95	\$53.95
177308CR	ADXL202EB-232	w/ RS-232	159.95	144.95



## PRECISION NAVIGATION, INC.

### Vector 2X Compass Module

- 2° accuracy, 1° resolution • Hard iron calibration
- Raw uncalibrated magnetometer output optional
- 3-wire serial output format (compatible with Motorola SPI and National Microwire)
- Master or slave capability for data clock generation
- 5Hz sampling rate • Pin selectable BCD or binary output format

Requires: Power supply 5V @ 10mA (recommend P/N 112070CR, pg 151)

Part No.	Description	1	10
126703CR	Vector 2X module	\$49.95	\$44.95

## New Educational Kits



### Detector Radio Kit ● 29-piece kit

Build this radio kit without power from batteries or a wall outlet. The simple design of this kit illustrates the basic principles behind radio broadcasting. Learn about HF coils, capacitors, resistors, diodes, and the necessary components of a radio and the role each one plays.

Includes: 32-page color manual with 20 experiments

Part No.	Description	Price
307707CR	Detector radio kit	\$22.95



### Fuel Cell Car Kit ■ 39-piece kit

A entertaining kit that provides introduction to one of the most significant technologies in the 21st century. Build a car with this kit that runs on water and watch as it turns water into hydrogen and oxygen, forming a gas to power your fuel cell car. Includes full color manual which illustrates how to build a solar powered car, the effects of direct and indirect radiation, the characteristics of a solar module, how to construct and load a reversible fuel cell, decomposition of water in the fuel cell, and much more.

Includes: 96-page full color manual with over 30 experiments

Part No.	Description	Price
307723CR	Fuel cell car and experiment kit	\$139.95



### Power House Kit ■ 59-piece kit

Get to know and use the power of the sun, wind, and new technologies while conducting 70 experiments and building more than 20 devices with this Power House Kit. Build, heat, and illuminate an energy efficient house.

Includes: 100-page full color manual

Part No.	Description	Price
307731CR	Power house kit	\$139.95



## Super Snooper Big Ear Audio Amplifier Kit

17-piece kit

Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube to isolate unwanted noise and make a directional microphone.

• Operating voltage: 9VDC (recommend P/N 151095CR, pg 159)

Includes: Instructions, outputs for speakers or headphones and schematic

Part No.	Description	Dimensions	1	10
151204CR	Audio amplifier kit	1.8"L x 1.0"W x 0.6"H	\$10.95	\$9.95

## FM Stereo Transmitter Mini Kit

37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76-108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095CR, pg 159)

Part No.	Description	Dimensions	1	10
151239CR	FMST-100 stereo kit	2.7"L x 2.0"W	\$29.95	\$26.95

## FM Transmitter

26-piece kit

Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

• Integrated pre-amplifier (sensitivity 5mV)

Requires: 9-12VDC power supply (recommend P/N 20626CR, pg 236)

Part No.	Product No.	Dimensions	1	10
117604CR	K1771	1.8"L x 2.8"W	\$12.49	\$11.29

## FM Radio Kit

65-piece kit

Easy to assemble – no coils to wind. Receives the complete FM band of 88 – 108MHz.

• With on/off switch, volume control, and LED indicator

• Single adjustment

Requires: 12VDC @ 100mA power supply (recommend P/N 100095CR, pg 152)

Part No.	Product No.	Dimensions	1	10
211772CR	MK118	4.8"L x 3.3"W	\$21.95	\$19.95

## One-Chip AM Radio Kit

39-piece kit

• Uses an IC that performs as an RF amp, detector and AGC in an AM radio

Requires: 9V battery (recommend P/N 151095CR, pg 159)

Part No.	Description	Dimensions	1	10
125161CR	AM radio kit	4.0"L x 1.3"W x 0.5"H	\$13.95	\$12.95

## 10 LED Mono VU Meter Kit

36-piece kit

• Instant visualization of audio signal levels

• Easy hook up to a LINE level (LOW input) signal source

• Special input (HIGH input) is provided, which allows direct connection to a speaker output

• Frequency range: 20Hz to 30kHz

• Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982CR, pg 152)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147643CR	K4304	2.7"L x 1.4"H	0.3	\$21.95	\$19.75

## Jameco Special Values!

Sale items highlighted in yellow.

Great quantity discounts highlighted in green.

## Universal Mono Pre-Amplifier

17-piece kit

For audio applications with insufficient input signal.

- Output impedance: 1k $\Omega$  • Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626CR, pg 236)

Part No.	Product No.	Dimensions	1	10
117612CR	K1803	1.2"L x 1.8"W	\$8.95	\$7.95

## 1-Watt Amplifier Kit

9-piece kit

Amplifies audio signals for an 8 $\Omega$  speaker. Use on P/N 125111CR and P/N 147838CR.

- Ideal part for larger projects & battery powered circuits
- Circuit designed around a single TDA7052 IC
- Battery and battery snap not included (recommend P/N 151095CR, pg 159 and 11279CR, pg 162)
- Drives 8 $\Omega$  speaker (not included)

Part No.	Description	Dimensions	1	10
125111CR	1 watt amp kit	1.2"L x 1.2"W x 0.9"H	\$6.29	\$5.59

## Super Mini 2.5W Audio Power Amplifier

27-piece kit

This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4 $\Omega$ , 12V)
- Short circuit/thermal overload protection

Requires: 4.5-15VDC @ 400mA power supply (recommend P/N 114825CR, pg 152)

Part No.	Product No.	Dimensions	1	10
127175CR	K2637	1.7"L x 1.3"W x 1.1"H	\$10.95	\$9.95

## 7-Watt Amplifier Kit

22-piece kit

- Music output power: 7W/4 $\Omega$
- RMS output: 3.5W/4 $\Omega$  & 2W/8 $\Omega$
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803CR, pg 152); speakers

Part No.	Product No.	Dimensions	1	10
127255CR	K4001	2.2"L x 1.4"W	\$13.95	\$12.49

## 18-Watt Bridged Mono Amplifier Kit

17-piece kit

- Drives 3-8 ohm speakers
- Based on the Hitachi HA13118 amplifier IC

Requires: 12VDC supply (recommend P/N 100095CR, pg 152)

Part No.	Description	1	10
136207CR	18 watt amplifier kit	\$15.59	\$13.95

## 20-Watt RMS Amplifier Module

- Input signal: 250mV • Maximum current: 2A
- Output impedance: 4-8 $\Omega$  (mono) • Pre-assembled
- Terminals: .100" matching disconnect solderless terminals
- Size: 2.8"L x 2.8"W x 1.6"H

Requires: Power supply: 12V @ 2A (recommend P/N 143714CR, pg 148)

Part No.	Description	1	10
147838CR	E-11 mono amplifier	\$24.95	\$22.49

## 30-Watt Stereo Power Amplifier

38-piece kit

General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4 $\Omega$  or dual 10W @ 8 $\Omega$
- Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864CR, pg 156)

Part No.	Product No.	Dimensions	1	10
129138CR	K4003	2.8"L x 2.0"W	\$29.95	\$26.95

**velleman**

## Sound Generator Kit 61-piece kit

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

**Requires:** 8Ω/1 watt speaker; 9V battery (recommend P/N 151095CR, pg 159)



Part No.	Product No.	Dimensions	1	10
127562CR	K4401	2.8"L x 2.8"W	\$29.95	\$26.95

## Siren Kit 20-piece kit

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver

**Requires:** 9V battery (recommend P/N 151095CR, pg 159)



Part No.	Description	Dimensions	1	10
125137CR	9V siren	2.0"L x 0.8"W x 0.5"H	\$5.95	\$5.39

## Train Sound Generator Kit 11-piece kit

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087CR 2 each, pg 159)



Part No.	Description	Dimensions	1	10
125170CR	4 train noises	1.1"L x 0.6"W x 0.2"H	\$9.49	\$8.59

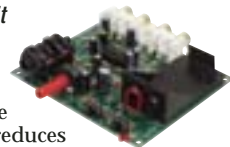
**velleman**

## Karaoke Kit 59-piece kit

Do your "Elvis" impersonation by hooking up this kit between your CD player, MD player, or any other line-level source and your amplifier; and sing along to your favorite music. Adjustable microphone level and "vocal reduction" switch reduces original vocals on most stereo surroundings.

- RCA input & output sockets
- ON/OFF switch & led power indicator
- Low power consumption: 16mA typical
- 6.3mm microphone jack

**Requires:** 9V battery (recommend P/N 198731CR, pg 159)



Part No.	Product No.	Description	Wt. (lbs.)	1	10
215394CR	MK140	3.9"L x 3.3"W x 1.0"H	0.2	\$15.95	\$14.35

# Speech Recording & Recognition Kits

## Digital Voice Module

- Selectable 16k/32k/44k bps sampling rate
- 0.5W audio amp on board with volume control
- All components soldered on board
- Plays 16 messages • 1M DRAM on board
- Power requirements: 6-12VDC, 200mA (P/N 100095CR, pg 152)



Part No.	Mfr. Cross Ref. No.	1	10
124871CR	DVM58D	\$65.95	\$59.95

**velleman**

## Voice Activated LEDs Kit 33-piece kit

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

**Requires:** 8-15VDC power supply (P/N 100095CR, pg 152) or 9VDC battery (P/N 151095CR, pg 159)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147571CR	MK103	2.5"L x 1.6"W x 1.4"H	0.1	\$9.95	\$8.95

## Voice Direct II Stand-Alone Speech Recognition Kit

Bring life to consumer electronics, toys, motors, appliances, lights, and games through the power of VoiceActivation™ from Sensory. Voice Direct™ II is a speaker-dependent speech recognition module, allowing training of up to 15 words; capable of being organized into 1 to 3 command sets. Using sophisticated speech recognition technology, Voice Direct™ II maps spoken commands to system control functions via digital I/O ports. Each time one of the words is recognized, output pins on the module are toggled high for 1 second. With Continuous Listening Technology, it means no button press is required for activation. Up to 3 "gateway" words can be programmed, each allowing access to 5 commands. In addition, Sensory's latest Voice Direct™ II technology builds on the original Voice Direct™ by offering even higher accuracy, faster response times, and improved noise immunity.



Part No.	Product No.	Description	Wt. (lbs.)	1	10
225971CR	66-0101	Speech kit	0.4	\$59.95	\$53.95

**velleman**

# Holiday Kits

## 3D Flashing Christmas Tree Kit

36-piece kit

- 16 flashing red LEDs
- Low power consumption: 8mA
- Extra green and yellow LEDs to customize your tree
- Size: 3.1"L x 3.5"W x 4.0"H

**Requires:** 9V battery (recommend P/N 151095CR, pg 159)

Shown with Battery  
(not included)

Part No.	Product No.	1	10
211781CR	MK130	\$10.95	\$9.95



## Santa Sleigh and Reindeer Kit 201-piece kit

Make sure Santa shows up in your house this year! 126 multi-colored LEDs animate the movement of the reins, sleigh and reindeer legs.

- Board size: 5.7"L x 3.2"W

**Requires:** 9V battery (recommend P/N 198791CR, pg 159) or 12VDC power supply (recommend P/N 100853CR, pg 152)



Part No.	Product No.	1	10
211764CR	MK116	\$22.95	\$20.65

## Deluxe Christmas Tree Kit 208-piece kit

- No need to remove battery when using external power supply
- 134 LEDs (green, yellow, and red)
- Size: 3.2"W x 5.6"H
- Red LED simulates blinking candles

**Requires:** 12VDC @ 500mA power supply (recommend P/N 162996CR, pg 151) or 9V battery (recommend P/N 198791CR, pg 159)

Part No.	Product No.	1	10
236072CR	MK117	\$19.99	\$17.99



## Flashing Christmas Tree Kit 30-piece kit

- 16 twinkling red LEDs
- Customize with included green and yellow LEDs
- Power: 9V battery (recommend P/N 198791CR, pg 159)

Part No.	Product No.	Price
147635CR	MK100	\$6.27



## Flashing Pumpkin Kit 71-piece kit

- Random flash effect simulates flickering candle
- 1 extra high intensity yellow LED illuminates the pumpkin
- 25 bright LEDs
- On/Off switch
- Size: 3.2"Hx4.0"Wx1.3"D

**Requires:** 9V battery (P/N 198791CR)

Part No.	Product No.	1	10
236081CR	MK145	\$9.99	\$8.99





## CEBEK 1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.

- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CR, pg 152)

Part No.	Description	1	10
147871CR	I-1 timer	\$19.95	\$17.95



## velleman Quartz Clock Mechanism

Build your own clock or replace the clock mechanism of a damaged clock with this quartz clock mechanism from Velleman.

Includes: 1 x 1.5AA battery

- Dimensions: 2.2"Sq x 0.6"Thick

Part No.	Description	1	10
239661CR	Quartz clock mechanism	\$3.49	



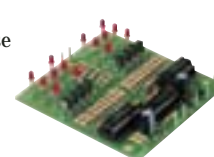
## velleman Dual Electronic Dice Kit ■ 85-piece kit

Board games provide an excellent source of entertainment. Update your game. Play with these electronic dice. Great for education of probability theory. Displays are switched off automatically after 30 seconds to save battery power.

- Two fully independent dice, at your choice you can play with one or two dice

Requires: 9V battery (recommend P/N 198791CR, pg 159)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
200352CR	K3400	3.0"L x 2.8"W	0.5	\$18.95	\$16.95



## 3 Second On to 1 Minute Off Cyclic Timer Module

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.

SALE

- Output by relay • Contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CR, pg 152)

Part No.	Description	1	10
147846CR	I-10 timer	\$22.49	\$20.29



# Power Supply and Motor Kits

## velleman 1 Amp Power Supply Kit ■ 12-piece kit

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.

- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

Requires: 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103CR or equivalent, pg 156)

Part No.	Product No.	Dimensions	1	10
117621CR	K1823	2.1"L x 2.1"W	\$12.95	\$11.65



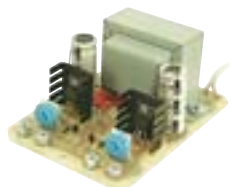
## Dual Adj. Regulated Power Supply Kit ■ 48-piece kit

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from  $\pm 5$  to  $\pm 15$ VDC.

- Adjustable positive and negative supplies  $\pm 5$  to  $\pm 15$ VDC, 175mA – 750mA per supply
- 120VAC input • LED on indicator
- PC board construction

Includes: Components and hardware

Part No.	Mfr. Cross Ref. No.	Dimensions	Wt. (lbs.)	1	10
20626CR	JE215	5.1"L x 3.5"W x 2.0"H	2.1	\$22.95	\$20.49



## velleman DC to Pulse Width Modulator Kit ▲ 40-piece kit

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- Operating voltage: 8 to 35VDC
- PWM frequency: 100Hz to 5kHz (adjustable)
- Min. consumption: 35mA • Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120539CR	K8004	3.3"L x 1.9"W x 1.8"H	0.5	\$22.95	\$20.49



Happen to find a like product at a lower print-advertised price?  
We'll beat that price by 10%!

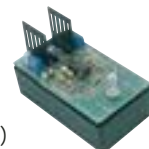
**Jameco's Low-Price Guarantee**

## DC Motor Speed Control Kit ■ 35-piece kit

- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825CR, pg 152)

Part No.	Description	Dimensions	1	10
127829CR	Motor control kit	3.6"L x 2.3"W x 1.2"H	\$19.95	\$17.95



## Unipolar Stepper Motor Driver Kit ■ 29-piece kit

- Drives 5, 6 or 8 lead unipolar stepper motors
- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Onboard 5VDC regulator

Part No.	Description	Dimensions	1	10
139109CR	Stepper motor	2.6"L x 1.9"W x 1.0"H	\$29.95	\$26.95



## DC Voltage Monitor Kit ● 46-piece kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

Part No.	Mfr. Cross Ref. No.	Dimensions	1	10
181833CR	VM-1	2.7"L x 1.3"W	\$8.95	\$7.95



## Stepper Motor Controller Card & Motor Kit

■ 102-piece kit

This kit is very useful in any home automation project where positioning is needed, such as controlling valves, HVAC duct dampers, natural light through window blinds, remotely turning down water heaters, or any robotic projects. This controller card can be used with P/N 128928CR (K8000 – computer interface board) and 16 of these kits can be connected to a single computer interface board. Both bipolar and unipolar motors can be used with this controller card (1A max.). Includes a high precision stepping motor (0.9 degree stepping angle).

- IC controlled via P/N 128928CR (K8000)
- Check status of switches via computer interface board or drive another motor
- Power supply: 7 – 25VAC or VDC @ 1.5A (recommend, P/N 237067CR, pg 153)
- Emergency stop can be sent to one or all cards
- Programmable in Visual Basic, Turbo Pascal for DOS, and Quick Basic (Windows® 95/98/ME) • Adjustable drive speed

Part No.	Product No.	Dimensions	Price
263628CR	K8005	3.9"L x 3.5"W	\$59.95





## 650nm Line and Dot Laser Diodes

143845CR/173243CR:

- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty

**Class IIIa Laser Product**



173243CR

143845CR: Line laser module

- Laser line width: 1mm
- Laser fan angle: 60°

173243CR: Cross hair laser diode module

- Laser fan angle: 60°
- Female 2.1mm power connector
- Size: 3.0"L x 0.9"D

143837CR: Module regulated power supply

- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.

143853CR: Laser module mount

- Built to hold laser diode on target.
- X-Y tilt,  $\theta$  movement
- Tightening screw for tilt adjustment



143853CR

Part No.	Description	1	10
143845CR	Line laser diode module	\$114.95	\$103.95
143853CR	Laser diode module mount	49.95	39.95
173243CR	Cross hair laser diode mod.	89.95	80.95
143837CR	Regulated power supply	19.95	17.95

## Green Laser Pointer

Even the sleepiest audience will sit up and salute when you whip out a laser pointer that's green, not red...and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night. You won't believe how bright it is.

**Ultra-intense green beam is much brighter, goes much farther and is easier on the eyes than standard red lasers.**

- Output wavelength: 532nm
- Output power: <5mW
- 90-day mfg. warranty

**Includes:** Metal gift box, clip and 2 AAA batteries

Part No.	Description	Price
223731CR	Green laser pointer	\$199.95 <del>\$169.95</del>

**Hot Product!**



## ALPEC Laser Pointer w/ Key Ring

- Range up to 150 yards
- 650nm red laser
- One-year warranty

**Class IIIa Laser Product**

**Includes:** 2 coin cell batteries

Part No.	Description	Size (L" x Dia.)	1	10
153613CR	Laser pointer	2.1 x 0.5	\$16.95	\$14.95



## Glass-Lens Red Laser Diode and Line Generator

133292CR: Laser Diode

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.

- Operating voltage: 4.0-6.0VDC (recommend P/N 112070CR, pg 151)
- Maximum output: 4mW
- Beam size at 7m: oval - 5mm x 8mm
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator
- Module size: 2.0"L x 0.5"W

**Class IIIa Laser Product**



133292CR

134148CR: 60° Line Generating Lens

- Adjustable focus range: 50 cm to  $\infty$
- Back focal length: 1.5mm
- Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60°
- Length at 1 meter distance: 1.7 m



134148CR

Part No.	Description	1	10	25
133292CR	Glass laser diode	\$44.95	\$39.95	\$35.95
134148CR	60° lens	12.95	11.49	9.95

## Laser Light Show



A Laser Light show in the palm of your hands. Push a switch for fascinating, ever-changing laser patterns. This state-of-the art laser device provides hours of fun for kids from 10 to 70 years young. A great and fun way to teach students about lasers and mechanical

- Range: 30 yards free form/500 yards dot point
- Output wavelength: 650nm
- Output power: <5mW

**Includes:** 3 LR44 batteries and neck strap

**Create all different shapes and sizes.**

resonances. Create your own laser light show while listening and dancing to your favorite tunes. Or hang it around your neck creating your own magical lights. Laser movement can be switched off and can be used as a compact laser pointer.

**SALE**

Part No.	Description	1	5
223714CR	Black case laser	\$22.25	\$20.25



## Jameco Special Values!



Sale items highlighted in yellow.

Great quantity discounts highlighted in green.

## Bluetooth Smart Presentation Pointer

The best presenters know to "keep it simple," and this pen-sized presentation pal is the essence of simplicity. It provides easy, wireless "forward/backward" control of your Power Point slides, and incorporates a laser pointer into its go-anywhere, pen-format design. Bluetooth technology means plug-and-play set-up and solid control from up to 45 feet away!



Part No.	Description	Price
256428CR	Smart presentation pointer	\$59.95

**New Lower Prices**

Control your electronic slides from up to 45 feet away!

Check our website at [www.Jameco.com](http://www.Jameco.com) for additional laser products.

# Order Form

See opposite page for Ordering Information

**Fax 1-800-237-6948 Order 24 hours/7 days a week!**

Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1-800-831-4242 International TEL: 1-650-592-8097 FAX: 1-650-592-2503

## 1 Ordered By (We will ship to this address unless you enter #2).

Customer No. \_\_\_\_\_ VIP No. \_\_\_\_\_  
(see back cover)

Company

Name of Requisitioner

Title

Name of Purchasing Agent

Title

Street Address/PO Box Number

City

State

Zip Code

Contact information (please provide all information and check method preferred)

( )

Daytime phone number - Required for Credit Card Orders

( )

Fax Number

E-mail Address

☐ Please check this box if you prefer not to receive special offers via e-mail from Jameco.

## 2 Ship To (Only required if different from #1)

Company

Name

Title

Street Address/PO Box Number

City

State

Zip Code

## 3 Method of Payment

☐ Prepaid (check enclosed) ☐ C.O.D. (\$7.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

PURCHASE ORDER NO.: \_\_\_\_\_

☐ Credit Card



Credit Card users only:

Credit Card Number

Exp. Date: Month   Year   Name on card \_\_\_\_\_

Billing Address Street/PO Box

City/State/Zip

## 4

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
				TOTAL WEIGHT		SUB-TOTAL	

## 5 Please Check Shipping Method Below



- ☐ Priority Mail (USPS) .....\$4.95 for 1st lb., \$1.99 for each additional lb.
- ☐ Ground .....\$6.95 for 1st 2 lbs., \$0.79 for each additional lb.
- ☐ 2 Day Air Service .....\$12.49 for 1st 2 lbs., \$1.59 for each additional lb.
- ☐ Next Day Air Service (AM delivery).....\$22.95 for 1st 2 lbs., \$1.99 for each additional lb.
- ☐ Next Day Air Service (PM delivery).....\$16.95 for 1st 2 lbs., \$1.99 for each additional lb.
- ☐ Foreign Shipment via Air Parcel Post .....Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

Some restrictions may apply. See order information (opposite page) for other shipping methods and conditions of sale. Shipping rate is based on a single package shipment.

Add \$5.00 processing fee on orders under \$20	
Please Add Applicable Sales Tax (California Only)	
Shipping (See Item 5)	
C.O.D. (add \$7.00)	
Canada and Mexico Certificate of Origin (\$25)	
Credit Memo (please attach)	-
TOTAL	

## 6

**JAMECO** *thanks you for your order!*

# \_\_\_\_\_ FOR OFFICE USE ONLY /

## PAYMENT OPTIONS

### Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

### Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

### Open Account

It is easy to open an account with Jameco. Contact us for obtaining open account status.

### C.O.D.

Personal checks are accepted. Please add \$7.00 per C.O.D. order. Include the name and address of your bank and your account number.

### International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.

E-mail: [international@Jameco.com](mailto:international@Jameco.com).

## SERVICES

### 30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit [www.Jameco.com](http://www.Jameco.com) to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. We're sorry, but books, kits, software, grab bags and special orders cannot be returned. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

### Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

### No Other Warranties

The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

### Limitation of Liability

Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

## 5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!

1-800-831-4242

International orders,

call 1-650-592-8097

Toll-Free

FAX:

US/Canada: 1-800-237-6948

Brazil: 000-817-455-6119

Columbia: 980-9-136748

Indonesia: 1-803-015-237-6948

Mexico: 001-800-593-1449

New Zealand: 080-044-0470

Other Countries: 1-650-592-2503

Online:

<http://www.Jameco.com>

On-line catalog! Our complete offering of over 11,000 products searchable on the Jameco website!

Mail:

E-mail your order to:

[sales@Jameco.com](mailto:sales@Jameco.com) or fill out the order form (next page) and mail it to us.

In-Person:

Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will call office hours are 8:00 a.m. - 5:00 p.m. Monday - Friday.

## CONTACT INFORMATION

The following services are available at 1-650-592-8097 Monday - Friday from 6:30 a.m. - 5:00 p.m. PST or via e-mail:

- International Sales ([international@Jameco.com](mailto:international@Jameco.com))
- Customer Service ([custservice@Jameco.com](mailto:custservice@Jameco.com))
- Credit Department ([credit@Jameco.com](mailto:credit@Jameco.com))
- Technical Support ([tech@Jameco.com](mailto:tech@Jameco.com))

### Toll-Free Hotline!

Please call us at 1-800-831-4242.

### A Nuestros Clientes en

**La Republica Mexicana:** Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

**Proyeccion Electronica de Mexico, S.A. de**

**C.V. a:** General E-mail: [info@proyel.com](mailto:info@proyel.com)

Quote E-mail: [jmc@proyel.com](mailto:jmc@proyel.com)

Phone/Fax: 01-(55) 5273-5029

### Direccion:

Benjamin Franklin No. 166 Desp. 1

Col. Escandon Deleg. Miguel Hidalgo

C.P. 11800 Mexico, D.F.

**Los demas paises de Latinoamerica:** Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

## PRICES

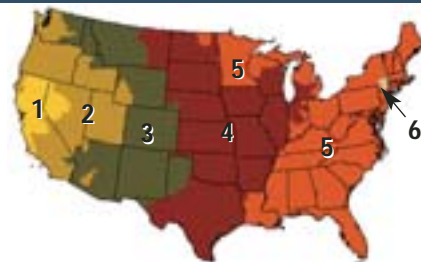
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## ONLINE INFORMATION

Get answers to frequently asked questions on the Jameco website at:

<http://www.Jameco.com>

## SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

- |        |        |        |
|--------|--------|--------|
| 1 day  | 2 days | 3 days |
| 4 days | 5 days | 6 days |

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth \$5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

### Options and Rates\*



Shipping delivery times are based on working days.

### Ground Service

Up to 6 working days for commercial address (up to 9 working days for residential).

Guaranteed delivery times may vary depending on zip code. \$6.95 for 1st 2 lbs.; \$0.79 for each additional lb.

### 2-Day Air Service

\$12.49 for 1st 2 lbs.; \$1.59 for each additional lb.

### Next Day Air Service

• \$22.95 for AM delivery for 1st 2 lbs.; \$1.99 for each additional lb.

• \$16.95 for afternoon delivery for 1st 2 lbs.; \$1.99 for each additional lb.

### Priority Mail (USPS)

\$4.95 for 1st lb.; \$1.99 for each additional lb.

Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.

Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages.

\* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

### International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a \$25 processing fee.

## POLICIES

### Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

### No Minimum Order

A \$5.00 processing fee will be added to orders under \$20.00.



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# Great Deals Across Our Product Line!



We offer GREAT DEALS across our entire product line. Take a look below and see why we're proud of our Great Products and Awesome Prices!



## Linear Series Amplifiers

We continue to expand our line of linear ICs, and our amplifiers are no exception. Just take a look at some of the savings we offer on pages 30-32.

Save Up to 51%



Jameco Part No.	Product No.	PRICES - See Bottom Right For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
22904CR	LF347N	\$0.36	\$0.76	\$0.56	\$0.586	\$0.20	35.7%
212193CR	MC3403N	\$0.26	\$0.55	\$0.52	\$0.55	\$0.26	50.0%
214084CR	TL084ACN	\$0.49	\$0.88	\$0.88	\$0.88	\$0.39	44.3%
193640CR	LF412CD	\$0.41	\$0.87	\$0.84	\$0.87	\$0.43	51.2%
33187CR	TL071CP	\$0.27	\$0.48	\$0.56	\$0.48	\$0.21	43.8%
120862CR	LM358AN	\$0.29	\$0.55	\$0.33	\$0.63	\$0.04	12.1%
213188CR	LM306N	\$0.59	\$1.05	\$1.05	\$1.05	\$0.46	43.8%

## Voltage Regulators

Jameco offers savings throughout our product lines, including voltage regulators. Take a look at some of these exceptional deals, and then find the product you're looking for on pages 28 & 29.

Save Up to 37%



Jameco Part No.	Product No.	PRICES - See Bottom Right For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
193551CR	LM317LM	\$0.33	\$0.67	\$0.53	\$0.68	\$0.20	37.7%
24467CR	LM723CN	\$0.26	\$0.72	\$0.32	\$0.938	\$0.06	18.8%
23931CR	LM350K	\$4.75	\$6.56	\$5.70	\$10.89	\$0.95	16.7%
23579CR	LM317T	\$0.45	\$0.61	\$0.51	\$0.68	\$0.06	11.8%
23552CR	LM317LZ	\$0.23	\$0.70	\$0.28	\$0.53	\$0.05	17.9%
23499CR	LM309K-STEEL	\$4.99	\$6.20	\$8.53	\$7.10	\$1.21	19.5%
33347CR	TL431CLP	\$0.31	\$0.40	\$0.38	\$0.40	\$0.07	18.4%

## 74F Series

Jameco introduces the popular 74Fxxx series. You'll typically save up to 10% on brand-name TI versions, and up to 20% on our functionally-equivalent mixed Major Brands.

Save Up to 49%



Jameco Part No.	Product No.	PRICES - See Bottom Right For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
287013CR	74F08N	\$0.20	\$0.48	\$0.35	\$0.42	\$0.15	42.9%
282600CR	SN74F374N	\$0.40	\$0.64	\$0.65	\$0.88	\$0.24	37.5%
245251CR	74F543N	\$0.83	\$1.63	\$1.73	\$1.63	\$0.80	49.1%
281501CR	SN74F08N	\$0.22	\$0.48	\$0.35	\$0.42	\$0.13	37.1%
287187CR	74F374N	\$0.35	\$0.64	\$0.65	\$0.88	\$0.29	45.3%
287072CR	74F138N	\$0.37	\$0.55	\$0.58	\$0.63	\$0.18	32.7%

## DIP & SOIC EEPROM

We're expanding our selection of EEPROM devices. So whether you need DIPs for prototyping or SOIC for production, check out the prices below. Then go to pages 6 & 7 to save!

Save Up to 25%



Jameco Part No.	Product No.	PRICES - See Bottom Right For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
276592CR	24C01/24LC01	\$0.36	\$0.45	\$0.48	\$0.56	\$0.09	20.0%
276664CR	24C08/24LC08 SO	\$0.32	\$0.38	\$0.48	\$0.555	\$0.06	15.8%
276648CR	24C04/24LC04 SO	\$0.34	\$0.56	\$0.42	\$0.49	\$0.08	19.0%
276630CR	24C02/24LC02 SO	\$0.37	\$0.54	\$0.45	\$0.49	\$0.08	17.8%
276980CR	93C66/93LC66 SO	\$0.37	\$0.84	\$0.45	\$0.52	\$0.08	17.8%
276568CR	24C00/24LC00	\$0.26	\$0.36	\$0.35	\$0.405	\$0.09	25.7%

## Radial Electrolytic Capacitors

Electrolytic capacitors may all look the same, but they're certainly not priced the same! See page 52, then reduce your costs by purchasing from Jameco.

Save Up to 75%



Jameco Part No.	Product No.	PRICES - See Right For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
93825CR	R470/50	\$0.29	\$0.86	\$0.44	\$0.435	\$0.15	34.1%
158465CR	R470B63	\$0.30	\$1.50	\$1.23	\$1.21	\$0.91	75.2%

## 74AC Series CMOS

Save Up to 42%

Save 40% or more on your next purchase of 74AC devices! Our recently-expanded offering of products from six Major Brands is located on pages 13 & 14.



Jameco Part No.	Product No.	PRICES - See Below For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
211932CR	74AC373	\$0.40	\$0.73	\$0.62	\$0.624	\$0.22	35.5%
211895CR	74AC240	\$0.30	\$0.50	\$0.63	\$0.50	\$0.20	40.0%
238975CR	74AC541	\$0.59	\$1.20	\$0.92	\$1.20	\$0.33	35.9%
211908CR	74AC244	\$0.29	\$0.50	\$0.87	\$0.50	\$0.21	42.0%
261817CR	SN74AC245N	\$0.40	\$0.50	\$0.77	\$0.50	\$0.10	20.0%
261614CR	SN74AC240N	\$0.32	\$0.50	\$0.63	\$0.50	\$0.18	36.0%
261796CR	SN74AC244N	\$0.32	\$0.50	\$0.87	\$0.50	\$0.18	36.0%

## Trimmer Potentiometers

Be sure to take a look at our expanding line of trimmer pots and learn how you can save! Our complete selection is on pages 60-62.

Save Up to 28%



Jameco Part No.	Product No.	PRICES - See Below For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
254300CR	3386P-201	\$0.85	\$1.29	\$1.10	\$1.25	\$0.25	22.7%
254545CR	3329P-253	\$1.70	\$2.61	\$2.24	\$2.11	\$0.41	19.4%
254529CR	3329P-103	\$1.70	\$2.61	\$2.24	\$2.66	\$0.54	24.1%
254393CR	3386P-104	\$0.85	\$1.29	\$1.10	\$1.25	\$0.25	22.7%
254271CR	3362W-105	\$0.60	\$0.83	\$0.83	\$0.98	\$0.23	27.7%
253981CR	3362P-102	\$0.59	\$0.83	\$0.83	\$0.98	\$0.24	28.9%
254027CR	3362P-503	\$0.59	\$0.83	\$0.83	\$0.98	\$0.24	28.9%
254220CR	3362W-253	\$0.60	\$0.83	\$0.83	\$0.67	\$0.07	10.4%

## Tantalum Capacitors

Save Up to 33%

Don't let capacitors bypass your potential savings. Our network of sources finds the best deals in Tantalum capacitors, and we're passing the savings on to you!



Jameco Part No.	Product No.	PRICES - See Below For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
33486CR	TM.1	\$0.23	\$0.48	\$0.30	\$0.52	\$0.07	23.3%
33689CR	TM10	\$0.80	\$1.50	\$1.07	\$1.63	\$0.27	25.2%
33806CR	TM4.7	\$0.41	\$0.78	\$0.62	\$0.85	\$0.21	33.9%
33822CR	TM47	\$3.05	\$5.07	\$3.97	\$5.50	\$0.92	23.2%
33873CR	TM6.8	\$0.53	\$0.88	\$0.67	\$0.96	\$0.14	20.9%
33700CR	TM100	\$1.09	\$2.60	\$2.40	\$1.65	\$0.56	33.9%
94019CR	TM2.2/25	\$0.35	\$0.54	\$0.42	\$0.64	\$0.07	16.7%
94107CR	TM22/25	\$1.59	\$2.59	\$1.98	\$2.82	\$0.39	19.7%

## Discrete LEDs

Save Up to 38%

Check out our complete line of money-saving LEDs on pages 45 & 46. You'll find standard and high-output discretes, as well as 7-segment devices up to 5.0" (that's not a typo!) tall!



Jameco Part No.	Product No.	PRICES - See Below For Details				Minimum Savings	
		Jameco*	Digi-Key*	Mouser*	Newark*	Savings	Discount
104264CR	LA93B/Y-1	\$0.35	\$0.61	\$0.57	\$0.601	\$0.22	38.6%
34673CR	LHG3392	\$0.24	\$0.49	\$0.28	\$0.49	\$0.04	14.3%
94553CR	LHG2062	\$0.29	\$0.50	\$0.37	\$0.50	\$0.08	21.6%
137613CR	LSBI3333	\$2.27	\$2.67	\$2.52	\$3.49	\$0.25	9.9%

## More on Price Comparisons

These are single unit prices taken from each party's website on September 13, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.



## EJECT-A-DIP DIP Collet Sockets

### With Solder Tail Pins

- Latch and body: UL 94V-0 glass-filled polyester thermoplastic
- Brass alloy pin body w/ 200µ" (5.08µm) 93/7 tin/lead plating
- Beryllium copper alloy 6-fingered collet contact w/ 10µ" (0.25µm) gold plating
- Contact current: 3A
- Insulation resistance: 10,000MΩ @ 500VDC
- Withstanding voltage: 1000VRMS
- Operating temp.: -67°F to 257°F (-55°C to 105°C)
- Center pins: 291493CR/291830CR – .300"; 295216CR/295259CR – .600"
- Suggested PCB hole size: .030" (.76mm) dia.



291830CR

### Vertical Mount

Part No.	Product No.	Pins	L" x W"	1	10	100
291493CR	14-C280-10	14	.95 x .40	\$3.09	\$2.49	\$2.05
291830CR	16-C280-10	16	1.05 x .40	3.29	2.65	2.21
295216CR	32-C182-10	32	1.89 x .70	5.55	4.49	3.75
295259CR	40-C182-10	40	2.29 x .70	7.05	5.69	4.75

## Wireless RF Keyboard and 3-button Optical Scroll Mouse



The stylish Labtech® wireless desktop optical combines a wireless multimedia keyboard with a 3-button optical wheel scroll mouse. With multimedia keys at your fingertips, you can play CDs, MP3 files, and DVDs.

- Keyboard size: 18.0"L x 8.7"W x 1.6"H
- Mouse size: 4.9"L x 2.8"W x 1.5"H

**Includes:** Installation guide and 4 AA batteries

**System Requirements:** IBM or compatible system, available PS/2 port for mouse and keyboard, Windows® 95/98/ME/NT/2000/XP, CD-ROM drive

Part No.	Description	1	10
308101CR	RF wireless KB & mouse .....	\$37.25	\$35.49

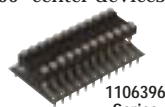
For a complete listing of  
**NEW** products  
See page 5.



## Row to Row DIP Adapter Socket

These sockets allow the use of .300" (7.62mm) center devices when the PCB is drilled on .600" (15.24mm) centers and vice versa, giving the flexibility of using .600" or .300" center devices in the same application.

- Socket body: UL 94-HB glass-filled nylon
- Brass alloy pin body w/ 200µ" (1.27µm) 93/7 tin/lead plating
- Beryllium copper alloy 4-fingered collet contact w/ 30µ" (0.76µm) gold plating
- Contact current: 3A
- Operating temp.: 221°F (105°C)
- Suggested PCB hole size: .035" (.89mm) dia.



1106396 Series



1107254 Series

### Series 1106396 – .300" to .600" adapter

Part No.	Product No.	Pins	1	10	100
296737CR	1106396-24	24	\$9.69	\$7.39	\$6.60
296745CR	1106396-28	28	10.89	8.29	7.35

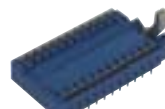
### Series 1107254 – .600" to .300" adapter

Part No.	Product No.	Pins	1	10	100
296753CR	1107254-24	24	\$9.69	\$7.39	\$6.60
296761CR	1107254-28	28	10.89	8.29	7.35



## Series 526 Low Profile ZIF Socket

- Body: UL 94V-0 glass-filled polyester thermoplastic
- Beryllium copper alloy spring tempered contacts w/ 200µ" (5.08µm) tin plating
- Zinc alloy cam
- Operating temp.: -67°F to 221°F (-55°C to 105°C)
- Contact current: 2A
- Contact resistance: 10m Ω max.
- Breakdown voltage: 1000VAC min.
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .035" (0.89mm) dia.



Part No.	Product No.	Pins	L" x W"	1	10	100
296788CR	24-526-10	24	1.45 x .75	\$5.65	\$5.19	\$4.39



## Series 516 ZIF Sockets

- Body, handle, and cam are 94V-0 glass-filled polyester thermoplastic
- Copper beryllium pins w/ 50µ" (1.27µm) tin plating
- Contact current: 1A
- Operating temperature: 221°F (105°C)
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .035" (.89mm) dia.



295110CR

Part No.	Product No.	Pins	L" x W"	1	10	100
295110CR	28-516-10	28	1.2 x .785	\$8.99	\$8.19	\$7.75
295224CR	40-516-10	40	2.0 x .780	11.99	10.79	10.19



## High Temp. Universal Zero Insertion DIP Test

### Series X55X

- Accepts devices on .300" to .600" (7.62mm to 15.24mm) centers
- Contacts are normally closed to eliminate dependence on plastic to sustain contact
- Socket body: UL 94V-0 glass-filled PPS
- Stainless steel handle • Contact current: 1A
- Beryllium nickel alloy contacts w/ 50µ" (1.27µm) nickel boron • Insulation resistance: 1000MΩ
- Dielectric withstanding voltage: 1000VAC
- Operating temperature: 482°F (250°C)
- Center pins: .600" (15.24mm)
- Gold plating (except 296796CR – tin plating)



292058CR

Part No.	Product No.	Pins	L" x W"	1	10	100
292058CR	26-6554-11	26	1.3 x 0.9	\$10.95	\$9.59	\$9.31
295161CR	28-6554-11	28	1.4 x 0.9	11.85	10.39	10.09
295208CR	32-6554-11	32	1.6 x 0.9	13.15	11.49	11.19
295232CR	40-6554-11	40	2.0 x 0.9	15.69	13.79	13.39
295291CR	48-6554-11	48	2.4 x 0.9	18.39	16.09	15.59
296796CR	48-6554-10	48	2.4 x 0.9	13.49	11.79	11.49



## PLCC Test & Burn-In Zero Insertion Socket

### Series 536

- Black body UL 94V-0 glass-filled polyphenylene sulfide
- Beryllium copper alloy contacts w/ 12µ" (.30µm) gold plating
- Contact current: 1A
- Contact resistance: 30m Ω max. (initial)
- Insulation resistance: 1000MΩ min.
- Dielectric strength: 700VAC cont. for 1 minute
- Self inductance: 8.9nH at 10MHz
- Operating temp.: -67°F to 338°F (-55°C to 170°C)
- Size: 1.772"L x 1.339"W



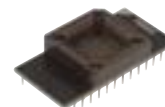
Part No.	Product No.	Pins	1	10	100
295267CR	44-536-11	44	\$60.29	\$53.39	\$50.09



## PLCC to DIP Adapter with Socket

### Series 653000

- Converts PLCC packaged ICs to DIP footprints
- Adapter body: FR-4; .062" (1.58mm) thick
- with 1 oz. Minimum copper traces
- Brass alloy solder tail pins w/ 200µ" (5.08µm) 93/7 tin/lead • Current rating: 1A
- Operating temperature: 221°F (105°C)
- Center pins: .600" (15.24mm)
- Suggested PCB hole size: .028" (.71mm) dia.



295152CR

Part No.	Product No.	Pos.	L" x W"	1	10	100
295152CR	28-653000-10	28	1.4 x .705	\$23.39	\$20.05	\$19.45
295195CR	32-653000-10	32	1.6 x .705	35.65	32.65	26.25

## Perma Seal RCA/BNC Connectors

Use the color code chart below to replace the "xx" when ordering

02 – Red	04 – Yellow	05 – Green	09 – White	10 – Black	13 – Blue
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e.g. 292102CR – 2921 is the Jameco designation for RCA RG-59 plug and 02 is for color red

Part No.	Description	1	10
2922xxCR	RCA RG-6 plug .....	\$1.59	\$1.49
2921xxCR	RCA RG-59 plug .....	1.59	1.49
2924xxCR	BNC RG-6 plug .....	1.89	1.79
2923xxCR	BNC RG-59 plug .....	1.89	1.79



## RG-6/RG-59 75Ω Patch Cables



Type	Length (ft.)	Part No. (Black)	Part No. (White)	287152CR	287232CR	5
RG-6	3	286977CR	287232CR	.....	\$1.69	\$1.59
RG-59	3	85585CR	.....	.....	1.05	.95
RG-6	6	287101CR	287241CR	.....	2.29	2.15
RG-6	12	287128CR	287259CR	.....	3.69	3.49
RG-6	25	287152CR	.....	.....	6.99	6.65
RG-6	50	287179CR	287275CR	.....	13.49	12.75
RG-6	75	287208CR	287291CR	.....	18.99	18.15
RG-6	100	287224CR	287304CR	.....	24.99	23.75



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The Intel® Seabreeze motherboard is a great platform for a compact computer or embedded system. Its price may be low, but for features, format, and functionality, it can't be beat! Eight USB 2.0 ports and three PCI slots pack a lot of expandability into its tight uATX form factor. Intel quality and Jameco pricing: Who could ask for more? See page 167.



intel

Part No.	Description	Price
285114CR	Intel Seabreeze motherboard (model # BOXD845GVSRL)	\$79.95

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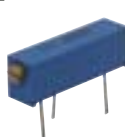
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## Fast USB Connections, at Low Jameco Prices!

You don't have to sacrifice quality for low cost in computer cabling! We offer lightning-fast USB 2.0 cables in the three most popular



configurations in your choice of lengths and colors. All in-stock for

immediate delivery, and at a 50% savings!

### 6' USB 2.0 Black Cables

Part No.	Description	Price
222033CR	A male to A male	\$1.65
222009CR	A male to B male	1.65
222068CR	A male to B female	1.65

For additional USB cable colors, lengths and plug configurations - see page 73.

## UL-1430 100' Stranded Hook-Up Wire Price Comparisons

Jameco Part No.	AWG	Strands (No. x AWG)	Color	Jameco® Price	Mouser® Price	Allied® Price	Digi-Key® Price	Minimum Savings
307918CR	18	9 x 30	Black	\$12.95	\$32.90	\$58.43	Not Offered	60.6%
307926CR	18	19 x 30	Red	\$12.95	\$32.90	\$54.54	\$62.00	60.6%
305015CR	18	7 x 26	Orange	\$12.95	\$32.90	\$54.54	Not Offered	60.6%
305023CR	18	7 x 26	Yellow	\$12.95	\$32.90	\$54.54	Not Offered	60.6%
304995CR	20	19 x 32	Yellow	\$12.95	\$28.94	\$52.90	\$52.00	55.3%
305007CR	20	19 x 32	Gray	\$12.95	\$28.94	\$45.33	\$52.00	55.3%
304979CR	20	7 x 28	Blue	\$12.95	\$28.94	\$78.22	Not Offered	55.3%
304987CR	20	7 x 28	Gray	\$12.95	\$28.94	Not Offered	Not Offered	55.3%
307897CR	20	7 x 28	Black	\$12.95	\$28.94	\$45.33	Not Offered	55.3%
307900CR	20	7 x 32	Red	\$12.95	\$28.94	\$50.03	Not Offered	55.3%

These are single unit prices taken from each party's website on September 13, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

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